PLAINTIFFS' MEMORANDUM IN OPPOSITION TO DEFENDANTS' MOTION TO EXCLUDE EXPERT TESTIMONY OF THOMAS MCGUIRE

EXHIBIT F

THOMAS MCGUIRE DEPOSITION TRANSCRIPT (09/09/2020).

IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF WEST VIRGINIA

* *

THE CITY OF HUNTINGTON,

Plaintiff,

vs. CIVIL ACTION
NO. 3:17-01362

AMERISOURCEBERGEN DRUG CORPORATION, et al.,

Defendants.

_____

CABELL COUNTY COMMISSION,

Plaintiff,

vs. CIVIL ACTION
NO. 3:17-01665

AMERISOURCEBERGEN DRUG CORPORATION, et al.,

Defendants.

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Videotaped and videoconference deposition of THOMAS MCGUIRE taken by the Defendants under the Federal Rules of Civil Procedure in the above-entitled action, pursuant to notice, before Teresa S. Evans, a Registered Merit Reporter, all parties located remotely, on the 9th day of September, 2020.

APPEARANCES:

APPEARING FOR THE PLAINTIFFS:

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APPEARANCES (Contd.):

ALSO PRESENT:

Adam Hager, Videographer
Justin Taylor, Esquire (via Zoom)

EXAMINATION INDEX

P R O C E E D I N G S

VIDEO OPERATOR: Good morning. We are going on the record at 9:04 a.m. on September 9th, 2020. Please note that the microphones are sensitive and may pick up whispering, private conversations and cellular interference. Please turn off all cell phones or place them away from the microphones as they can interfere with the deposition audio.

Audio and video recording will continue to take place unless all parties agree to go off the record.

This is Media Unit 1 of the video recorded deposition of Tom McGuire taken by counsel for the Defendant in the matter of the City of Huntington and Cabell County Commission versus AmerisourceBergen Drug Corporation, et al, filed in the United States District Court for the Southern District of West Virginia, being Civil Action Nos. 3:17-01362 and 3:17-01665.

This deposition is being conducted remotely via Zoom conferencing. My name is Adam Hager from the firm Veritext and I'm the videographer. The court reporter is Teresa Evans

from the firm Veritext.

I am not authorized to administer an oath; I am not related to any party in this action; nor am I financially interested in the outcome.

Counsel and all present and everyone attending remotely will now state their appearances and affiliations for the record.

If there are any objections to proceeding, please state them at the time of your appearance, beginning with the noticing attorney.

MR. KEYES: Andrew Keyes with the law firm of Williams & Connolly on behalf of Cardinal Health.

MR. PENDELL: Go ahead. The other defendants want to go before I go or what?

MR. FRANKS: Yeah, this is -- I'm sorry, I'll go ahead. I'm running a little slow this morning.

Also on behalf of Cardinal Health as local counsel in Charleston, West Virginia, for the firm of Carey, Kessler -- Carey Douglas Kessler and Ruby, this is Ray Franks.

MR. BREESE: This is Cliff Breese from Reed Smith on behalf of ABDC.

MR. KEYES: Anyone for McKesson?

MR. PENDELL: This is Mike Pendell, Motley Rice, for the Plaintiffs.

MR. HURST: This is John Hurst with Motley Rice for the Plaintiffs.

MR. KO: Oh, go ahead, John. Good morning everyone. Bright and early from the West Coast, this is David Ko, Keller Rohrback, also on behalf of the Plaintiffs.

MR. BURNETT: And David Burnett from Motley Rice on behalf of Plaintiffs.

MR. KEYES: Anyone else?

MS. KEARSE: Anne Kearse is also on for the Plaintiffs.

VIDEO OPERATOR: If there are no further appearances to be noted, would the court reporter please swear the witness.

(A discussion was had off the record regarding someone needing to mute their audio after which the proceedings continued as follows:)

(The witness was sworn.)

T H O M A S M C G U I R E

was called as a witness by the Defendants, and

having been first duly sworn, testified as follows:

EXAMINATION

BY MR. KEYES:

Q. Good morning, Professor McGuire. Would you please state your full name for the record?

A. Good morning. My name is Thomas Gregory McGuire.

Q. And you are serving as a testifying expert in this case, correct?

A. Yes.

Q. And you're serving as a testifying expert for the plaintiffs in this case?

A. That's right, for the plaintiffs.

Q. And who do you understand to be the plaintiffs in this case?

A. I understand the plaintiffs to be the City of Huntington and Cabell County.

Q. And you've issued a written report setting forth your opinions in this case?

A. Yes, I have.

Q. And that report is dated August 3rd, 2020?

A. Yes, it is.

Q. And then you submitted an errata sheet to that report?

A. Yes, I did.
Q. And you submitted that errata sheet on August 24th, 2020?
A. Yeah, I believe that's correct.
Q. And that errata sheet sets forth corrections or modifications to your original report, correct?
A. Yes, it does.
Q. Okay. Other than your original report and that errata sheet, have you prepared anything in writing that sets forth your opinions in this case?
A. No, I have not.
Q. Okay. I believe your report is titled the professor -- the "Report of Professor Thomas McGuire Regarding Public Nuisance in the Cabell Huntington Community in West Virginia."
Did I get that title right?
A. I'd have to check. Should I look at it or not?
Q. It sounds right to you so far.
A. It's -- I'll go with it.
Q. Okay. And that report sets forth your opinions in this case?
A. Yes, it does.

Q. And the statements in that report are your statements?

A. Yes, they are.

Q. And the calculations in that report are your calculations?

A. Yes, they are.

MR. PENDELL: Objection.

Q. And the work reflected in that report is your work?

A. Yes, it is.

Q. And does that report include all of the opinions that you intend to offer in this case as a testifying expert for the plaintiffs?

A. Unless I'm asked to do more, that's that.

Q. Okay. So at this point in time, have you been asked to do more?

A. No, I haven't.

Q. When were you first engaged to work on this case as a testifying expert?

A. I went back and looked at my records, and I began to record hours in January of this year. Now, I -- it might have been an engagement prior to that, but probably not very much farther than that and --

Q. Who --
A. -- (Zoom audio glitch)
Q. -- first approached you about serving as a testifying expert in this case?
A. It likely would have been Renee Rushnawitz of Greylock McKinnon.
Q. And why do you believe it's likely that it was her?
A. She's an officer of the company and tends to field requests from counsel, and then would have passed the request on to me.
Q. And in your prior answer, you referenced "the company." Are you referring to Greylock McKinnon Associates?
A. Yes, that's it.
Q. Did you write the report?
A. Yes, I did.
Q. Did anyone else write portions of the report for you?
A. No, I wouldn't say, no.
Q. When you were first engaged as an expert in this case, what did you understand the scope of your assignment to be?
A. Well, I understood it to -- to bear on the

subject of public nuisance, and then to -- with respect to public nuisance, consider whether the net costs of prescription opioids in the -- in what I'll call "the community - by which I mean Cabell County and Huntington - are sufficiently large to support the conclusion that they were a public nuisance.

Q. Anything else?

A. Well, my assignment is -- you know, in more detail, is on the first couple pages of my report, and has three pieces. But that's the, you know, general subject of what my assignment was.

Q. In Paragraph 5 of your report, you say, quote, "I have been assisted in this matter by staff of Greylock McKinnon Associates working under my direction."

Did anyone besides the staff of Greylock McKinnon Associates provide any assistance?

MR. PENDELL: Hold on. Andy, I don't know if other people are, but we're having a hard time hearing you. You sort of sound like you're underwater.

MR. KO: Yeah, I have the same

problem. I couldn't hear that last question, Andy.

MR. KEYES: Did it change or did it sound like this from the beginning?

VIDEO OPERATOR: No, it changed. You did not sound like that at the beginning.

MR. PENDELL: Right.

MR. KEYES: Is this better?

MR. PENDELL: No.

MR. KEYES: How about now?

MR. PENDELL: No.

VIDEO OPERATOR: No. Sounds the same.

MR. PENDELL: It's weird, because in the beginning, you were fine.

THE DEPONENT: I would mute and unmute. That's my strategy for these things.

MR. KEYES: Good strategy. Is this better?

THE DEPONENT: No.

VIDEO OPERATOR: No. It still sounds the same.

(A discussion was had regarding audio issues off the record after which the proceedings continued as follows:)

VIDEO OPERATOR: Going off the record.

The time is 9:14 a.m.

VIDEO OPERATOR: Now begins Media Unit 2 in the deposition of Tom McGuire. We're back on the record. The time is 9:21 a.m.

BY MR. KEYES:

Q. Professor McGuire, sorry for the delay.

A. No problem.

Q. In Paragraph 5 of your report, you say, quote, "I have been assisted in this matter by staff of Greylock McKinnon Associates working under my direction."

Did anyone besides the staff of Greylock McKinnon Associates provide any assistance to you in this engagement?

A. No, they didn't.

Q. I believe that staff from Compass Lexecon had assisted you in a prior engagement with different plaintiffs in the opioid litigation. Did anyone from Compass Lexecon help you on this engagement?

A. No, they didn't.

Q. Okay. How many staff from Greylock McKinnon Associates assisted on this engagement?

A. Most of them would have been, you know, you

would say part-time. But of the total number of people who would have assisted, I -- my guess is six, seven.

Q. And who are they?

A. My primary contact at Greylock McKinnon was Adrian Garcia. And also Renee Rushnawitz was very helpful. And then Adrian would have organized work of analysts to, you know, conduct different tasks with respect to the report.

Q. How many different --

A. I'm sorry. Would you like names?

Q. Yes. Do you have names?

A. Yes. Travis Donahoe was one of the analysts, and he happens to be from Huntington, West Virginia, went to Marshall.

Then -- that's -- I'm sorry, that's the only name I can recall at this point.

Q. Okay. So what was Renee Rushnawitz's role in this engagement?

A. I would say -- she's a kind of jack of all trades and very experienced in litigation, so -- I don't know. She would, you know, help organize who does what and help problem solve generally.

Q. Did she work on any particular issue or

issues covered by your report?

A. No, I don't think so.

Q. What about Adrian Garcia? You said that he -- he coordinated the work of different analysts to do different tasks. But did Mr. Garcia work on any particular issue or issues covered by your report?

A. He worked on all the issues, I would say.

Q. Okay. And what did Travis Donahoe do?

A. He mostly worked on the labor force analysis and some on the -- mostly within the morbidity section, I would say. There's a couple pieces there that he helped with.

Q. And how much time did the staff of Greylock McKinnon Associates spend on this engagement?

A. Now, I never saw any record of that, so I really wouldn't know.

Q. Okay. And do each of them charge an hourly rate?

A. Well, they -- they would be billed at an hourly rate by Greylock McKinnon, but actually, I don't know how that works, so sorry. I can't tell you.

Q. Okay. In the Summit County and Cuyahoga County case in which you served as a testifying

expert, you testified that your report in that case on nuisance was your first public nuisance venture. Do you recall that testimony?

A. Yes, I do.

Q. And you testified in that Summit County and Cuyahoga County case that you had never served as a testifying expert offering opinions regarding a public nuisance before that case. Do you recall that testimony?

A. I do, yes.

Q. Okay. And in your report in this case, on page 3 of your summary of litigation experience, you say that you have prepared an expert report in the case filed as State of Washington versus Purdue Pharma in King County Superior Court in Washington.

Do you recall that?

A. Yes, I do.

Q. And so in that case, you've submitted an expert report?

A. I did, yes.

Q. Have you been deposed in that case?

A. It would be written there.

Q. Yeah, you wrote here that you had an expert report in July of 2019, and there's no reference to

being deposed.

A. Yeah, I wasn't deposed then.

Q. Okay. And you describe the scope of your assignment in that State of Washington case as, quote, "identification and valuation of public nuisance outcomes." Do you see that?

A. Yes.

Q. Okay. So other than the work you did in the Summit County and Cuyahoga case and the State of Washington case, and of course, this case, is there any other case where you have served as a testifying expert offering opinions regarding a public nuisance case -- a public nuisance?

A. That --

MR. PENDELL: Go ahead, Tom.

A. I'm sorry. Do you mean by that a completed report?

MR. PENDELL: Yeah, I just wanted -- Professor McGuire, to the extent you've been -- you've been disclosed as an expert and provided a report, you can answer that question, but you know, if you've been retained in other cases and not yet disclosed and -- or submitted an expert report,

then I would not talk about those engagements.

Does that make sense?

THE DEPONENT: That was my -- that was what my question was about.

A. So with that clarification, there's nothing else.

Q. Okay. So is it accurate to say that the only cases that you have served as a testifying expert offering opinions regarding a public nuisance are the Summit County and Cuyahoga County case, the State of Washington case and this case?

MR. PENDELL: Objection to form.

A. Yes.

Q. And your report says you are paid $850.00 per hour? Is that accurate?

A. Yes, that's correct.

Q. How many hours have you worked on this case?

A. I checked my records on this, so I can give you a pretty good number. I began recording hours in January of 2020, and through August of 2020 - which was the last accounting that I sent in to Greylock McKinnon, the total was 180 hours.

And of course, there'd be some in

September, so there might be to this point 20 more hours or so.

Q. Okay. So as of August of 2020, the total was 180 hours, and you anticipate roughly another 20 hours since the end of August?

A. Yes, that's correct.

Q. And to whom do you submit your invoices? Or your time records.

A. I submit them to Renee Rushnawitz.

Q. Okay. And you say in your report that in addition to the hourly rate you receive, you also receive compensation from Greylock McKinnon Associates based on the collected staff billings of Greylock McKinnon Associates in support of your work in this matter.

How is that compensation calculated?

A. It's a little mysterious to me, but what I know about it is that staff billings refer to a subset of the people who have worked on this report. For example, Renee Rushnawitz's time is not included in that calculation.

But then the billings of Adrian and the analysts, I believe, would be included in that. And then there's a percentage of that that's

figured and paid to me.

Q. And how is that percentage calculated?

A. That's the mysterious part to me. It varies according to my role. And I -- I just don't -- I don't focus on it. It is what it is and I'm happy when I get the money.

Q. So what is the amount of the compensation that you've received or will receive from Greylock McKinnon Associates based on the collected staff billings of staff in support of your work in this matter?

A. I have not received anything so far, and -- I don't know. It tends to happen, you know, when something is resolved, finished, end of story, whatever -- whatever happens to a matter, and I -- I'm not sure.

Q. So you don't know what the percentage is, and you don't know what the payment will be?

A. That's correct.

Q. Do you have any estimate or expectation what that amount will be?

A. You want me to give an estimate of what it -- in my experience, the payment might be?

Q. Yes.

MR. PENDELL: Hold on. I just want to object. But you can answer.

A. I'd say $20,000 to $25,000.

Q. Okay. And how are you arriving at that estimate of $20,000 or $25,000?

A. I've done other cases through GMA, and it -- this is a guess. You know, based on the kind of level of effort in this case, and comparing that to other cases, that's what I would expect the outcome to be.

Q. In past cases when you've received compensation from Greylock McKinnon Associates based on the work of staff in support of your engagement, have you received some kind of accounting that explains how that number was derived?

A. No, I haven't.

Q. You haven't gotten a report that says you're gonna receive X percent of Y hours spent by the staff on the engagement?

A. That's correct. I receive no details of the accounting. I don't know -- that's why I don't know the percentage. And I -- in none of the previous matters did I know either the total

billings by staff, nor did I know the percentage.

Q. I take it you don't know the percentage or the formula, but is there a -- an agreed-upon formula? Or is the amount that you receive for this type of compensation discretionary?

A. My understanding is that it's not discretionary, that there is a formula. It's just I haven't focused on it.

Q. In Appendix B of your report, you list a series of meetings and calls in which you participated with personnel from Cabell County or Huntington. Do you recall that?

A. Yes, I do.

Q. What was your purpose in participating in those meetings and calls?

A. Very generally to learn things about the local situation.

Q. And how much time did you spend in the March 4th, 2020 in-person meeting that you list on page Appendix B-18?

A. It would have been part of two --

MR. PENDELL: Mr. -- Andy, is he allowed to look at the report?

MR. KEYES: Sure.

MR. PENDELL: I just didn't know --

Q. If it's helpful, you can pull out the report. Yeah, if it's helpful, you can pull out the report and you can look at that page. It's page Appendix B-18.

A. Okay. I don't need it for this one, but I'll just get the report and bring it closer to me which would give me a feeling of security.

Q. Okay.

A. That particular in-person meeting would have been part of two days. And so in the afternoon of the first day, we had some meetings and then a dinner with some of the local people, and then the next day, there was another series of meetings that ended I'm not sure when. 2:00 or 3:00 or something like that.

So I'm just going to move a little bit, get my report, and I'll be like two seconds.

Q. Okay.

A. Okay.

Q. Okay. Well, why don't you turn to that list on page Appendix B-18.

A. Okay, I'm there.

Q. Okay. And do you see the section Titled

"Meetings and Calls"?

A. I do, yes.

Q. And then the first entry is for March 4th, 2020?

A. Yes.

Q. And it lists in-person meeting with counsel and Dr. Lyn O'Connell, Chief Jan Rader, Mayor Steve Williams, Captain Rocky Johnson, Dr. Zach Hansen, Doctor Todd Davies and Dr. Chafin. Do you see that?

A. I do, yes.

Q. Okay. And so you're saying that this actually occurred over two days, March 4th and March 5th?

A. I'm not sure which -- which of the dates of the two days, but there were some afternoon meetings prior to the big meeting.

Q. And did the in-person meeting described here occur before or after you started writing your report?

A. Probably you would say after.

Q. Okay. So when did you write the report in this case?

A. Oh, I think I would have started, you know,

right at the beginning, you know, outlining what it's gonna be, entering some of the material that I could enter, you know, as soon as possible, setting up the tables.

Q. And when you say, "the beginning," are you referring to January of 2020?

A. I would say January of 2020, yeah.

Q. Okay. Did -- did your in-person meeting with counsel and these individuals cause you to change direction in how you were approaching your assignment?

A. I'm not sure what you mean by "change direction".

Q. Did it cause you to do something differently than you had already started doing?

A. Well, I would say it -- you know, the in-person meetings were, I think, very helpful to see -- you know, to move from the level of abstract national statistics down to a real place with real people and how these things are affecting individuals in the community.

And it was quite -- you know, quite effective. So it -- it reinforced in my mind the importance of not just, you know, doing the

national-based calculations, but to where I -- to the extent I could, to relate that to the local on-the-ground experience.

Q. And where did these in-person meetings occur?

A. The in-person meetings were in the law offices of somebody or other in Huntington.

Q. In the law offices of one of the law firms representing the plaintiffs?

A. Well, I don't know that to be so, but it was in law offices.

Q. Okay. And then on the same page of your report, you list a series of calls with counsel and various individuals between March 31st, 2020 and July 31st, 2020. Do you see that list?

A. I do, yes.

Q. Okay. Did you take notes during any of these calls or meetings?

A. No, I did not take notes.

Q. Did you take notes in any of your in-person meetings or any of your calls that are listed on this page?

A. I did take some notes from the first meeting, yes.

Q. Okay.

A. But subsequent to that, I -- it was always -- you know, Adrian was on these calls, and I relied upon him to, you know, note down anything that would be -- we need to --

Q. Okay.

A. (Zoom audio glitch)

Q. So let me make sure I understand. For the in-person meetings that occurred either on March 3rd or 4th or the 4th and 5th, you did take some notes?

A. Yes, that's correct.

Q. Okay. And did you -- were these handwritten notes, or were these notes you took on a laptop or a computer?

A. I put them on a -- in a file on a computer. I didn't put them originally on a laptop, no.

Q. Okay. So you took handwritten notes and then you typed them up and saved them in a computer file?

A. It may have been that, or I may have just noted down things I remembered. I can't remember whether I actually had handwritten notes.

Q. Okay. And did you share the notes - either

the handwritten version or the typed-up version - with counsel for the plaintiffs?

A. No, I did not.

Q. Okay. Where are those notes now?

A. In the cloud somewhere.

Q. Okay. Do you know how to find them?

A. I could probably find them, yes.

Q. Okay. And then turning to the calls you had with counsel and these witnesses between the end of March and the end of July, you did not take any notes; is that correct?

A. That's correct.

Q. But I think you said Adrian from GMA did take some notes?

A. Yes. That's -- yes.

Q. And did he take notes at your direction, or on his own initiative?

A. I think I instructed him to take notes of anything that we needed to remember after the calls.

Q. Anyone besides Adrian take notes of any of these calls?

MR. PENDELL: Objection.

A. Well, he's the only one I know of.

Q. Okay. Did Adrian participate in all of these calls with you and these individuals? Or just some of them?

A. You know, I can't remember any he missed. I think he was in all of them or virtually all of them.

Q. And when he took notes, did he take them by hand, or did he type them up on a laptop or a computer?

A. I don't know.

Q. After he took the notes, was there ever an occasion where you looked at them as part of your work in preparing your report?

A. No, I did not.

Q. Have you ever seen his notes of these conversations?

A. No, I have not.

MR. KEYES: Mike, we received three pages of typewritten notes that had redactions. Are you able to tell me the basis for the redactions?

MR. PENDELL: I am -- I am not.

MR. KEYES: Okay. Would you make a note to look into that and let us know whether the

redactions are based on a claim of privilege or for some other reason?

MR. PENDELL: Will do.

MR. KEYES: Okay.

Q. And did your calls with any of these listed individuals cause you to change your approach?

A. Oh, I -- again, I don't think it's a matter of change of approach. You know, I'm trying to -- just to do, you know, a standard economic analysis here. And these individuals were not there to, you know, counsel me on the economic analysis.

It had to do with, you know, the nature of the impacts in the community and, in some cases, data sources.

Q. Focusing on the in-person meeting with counsel and the listed individuals, to what extent, if any, are you relying on what you were told in those meetings in offering your opinions in this case?

A. I have a hard time answering that other than, you know, elaborating on what I said a few minutes ago, that these individuals were various public servants and medical people in the Huntington area that could give concrete reports

about the kind of things that I was concerned with in my public nuisance report, and it confirmed the importance and --

I don't know. That's -- that's more or less how I, you know, would see these meetings.

Q. Did -- did any of these individuals provide any factual information that you relied on in terms of structuring your analysis or performing your calculations?

A. I would say to that question, in terms of structuring my analysis, I would say no. That I could -- I could bring that to the table.

Q. Okay. And returning to these calls you had from the -- between the end of March and the end of July, did you rely on any information from any of these individuals in preparing your report?

A. Well, I think you will see some in my report. The -- in some cases, there's, you know, quotes from these people. In some cases, there's material provided by -- I don't know if he's here.

-- the fellow who provided the heat maps.

These things all fed into -- fed into my report. But I think it's there in my report if

I relied upon it.

Q. Did you rely on anything they said in structuring your analysis or performing your calculations?

A. I mean, with respect to that, I would say no. I could structure the analysis based on my expertise, and the calculations I could also figure out how to do.

Q. Would you turn to page Appendix B-3?

A. Okay.

Q. Are you there?

A. Yes.

Q. You list a number of deposition transcripts. Do you see that list?

A. Yes, I do.

Q. Did you read each of those deposition transcripts?

A. I read a lot of deposition transcripts.

Q. Okay. Well, is this -- I didn't mean to cut you off.

A. No, you go ahead.

Q. Is this a complete list of deposition transcripts that you read in whole or in part?

A. Yes, I believe it is.

Q. Okay. So for the ones that are listed here, did you read each one of them in its entirety?

A. Well, that would probably be going too far. I didn't read each of them in their entirety. What I was interested in is if any part of the deposition had to do with something relating to my report. And then I would slow down and read that more carefully.

And you know, sometimes I would then draw material from them.

Q. Did anyone prepare summaries of these deposition transcripts for you to read?

A. No, they didn't.

Q. And so how did you know what portions of the deposition transcripts you should read because they related to your work in this matter?

A. Well, mostly it's looking at the deposition, you know, seeing a subject that's being discussed, and it takes pages and pages for some of the subjects to be handled, and so then you flip, flip, flip until you see something -- you know, some key words maybe that look like something you would be interested in, and then you stop and read

that.

Q. You also list a number of expert reports. I believe you list seven expert reports here. Do you see that?

A. Yes.

Q. Are those all of the expert reports that you had read prior to submitting your report on August 3rd?

A. Yes, that's correct.

Q. And did you read each of those reports in its entirety?

A. Well, I did read Keyes in its entirety. I think the others were in the same category of the depositions. There's some stuff I didn't focus on and some other stuff I did.

Q. And did you read the final version that was submitted on August 3rd, the same day as your report, or did you read an earlier version of those reports?

A. The Keyes report, I read the final version, and I believe the other ones as well too.

Q. Are these all of the expert reports that have been submitted by the plaintiffs in this case?

A. Hmm. I don't know one way or the other.

Q. So how did you come to review these reports in particular? Did you ask for them? Or did someone else suggest you read them?

A. I know I asked for, you know, at least three of these. I -- Lembke, Keyes and Waller. I don't remember Thompson and Smith.

Q. Just to make sure I understand, you -- you recall asking to see the expert reports written by Lembke, Keyes and Waller?

A. That's what I recall. And I don't recall whether or not I did with respect to Smith or Thompson.

Q. Okay. How about McCann?

A. Same. I mean, same in the sense that I don't recall having asked one way or the other.

Q. Okay. Did you speak with Craig McCann before he submitted his report?

A. No, I didn't.

Q. Have you spoken with Craig McCann since he submitted his report?

A. No, I haven't.

Q. So have you ever spoken with Craig McCann?

A. I don't think so. I may have in another matter, but I can't recall.

Q. Did you speak with Doctor Waller before he submitted his report?

MR. PENDELL: Objection.

A. No, I didn't.

Q. Have you spoken with Doctor Waller since he submitted his report?

A. No, I haven't.

Q. Have you ever spoken with Doctor Waller?

A. No, I don't think so.

Q. Did you speak with Doctor Thompson before she submitted her report?

A. Not that I recall, no.

Q. Did you speak with Doctor Thompson since she submitted her report?

A. No, I haven't.

Q. Have you ever spoken with Doctor Thompson?

A. No, I don't think so.

Q. Did you speak with Professor Keyes before she submitted her report?

A. Yes, I did.

Q. How many times?

A. Well, I first met Professor Keyes in the March visit in 2020, and of course, we spoke there. We were there, you know, for that time. And then

Professor Keyes was on maybe all - or certainly most - of the calls that are listed on page B-18 of this.

Q. Okay. Separate from the March 2020 visit and the calls that are listed on Appendix B-18, did you speak with doc -- Professor Keyes before she submitted her report?

A. You know, I don't think so.

Q. And have you spoken with Professor Keyes since she submitted her report?

A. No, I have not.

Q. Did you speak with Doctor Lembke before she submitted her report?

A. No, I did not.

Q. Did you speak with Doctor Lembke since she submitted her report?

A. No, I have not.

Q. Have you ever spoken with Doctor Lembke?

A. No, I don't think so.

Q. And did you speak with Doctor Smith before he submitted his report?

A. Yes, I did.

Q. How many times?

A. Once, I believe.

Q. When was that?
A. That would have been on one of the calls. I -- probably listed on B-18.
Do you want me to take a look?
Q. Sure.
A. All right. I may be mixing him up with someone. So I --
Q. Looking at --
A. I'm sorry.
Q. -- page B-18 --
A. Yeah, I (Zoom audio glitch) --
Q. -- refresh your recollection as to whether you spoke with Doctor Smith at any time before he submitted his report?
A. Yeah, maybe I didn't. I'm sorry if I got that wrong.
Q. Have you spoken with Doctor Smith since he submitted his report?
A. No, I haven't.
Q. Okay. And after looking at Appendix B-18, do you believe you've ever spoken with Doctor Smith?
A. No, I don't think I have.
Q. Okay. I've gone through the experts whose

reports you list here on Appendix B-3. Did you speak with any other expert who submitted a report for the plaintiffs at any time?

A. No.

Oh, Caleb Alexander, I -- was on some of the calls. Now, if you consider that "speaking with," but he was on some of the calls.

Q. Anyone else besides Caleb Alexander?

A. No.

Q. Okay. And you believe that Cal -- Caleb Alexander was on some of the calls that are listed on B-18?

A. Yes. He or --

Q. Separate from those calls, did you speak with Caleb Alexander?

A. No, I did not.

Q. So at this point, do you believe you've identified for me every conversation you had with any testifying expert for the plaintiffs in this case?

MR. PENDELL: Objection.

You can answer. Go ahead.

A. Well, to the best of my recollection, yes, that I've told you everything I know.

Q. When you spoke with Doctor Keyes, did you discuss her methodology for the opinions and calculations she offered in her report?

A. Well, yes, in the sense that I needed to know what she was doing so that I could be ready for it when the time came.

Q. Right. You couldn't wait for her to finish her report and then start your work. Correct?

A. That would have been extremely difficult.

Q. Okay. So when did you first discuss with her her methodology?

A. Oh, probably when we first met in March.

Q. And what did she explain in that March meeting about her methodology?

A. Well, Professor Keyes is an epidemiologist, as I'm sure you know. And we would have discussed, you know, the nature of the information she would be able to provide to me for purposes of my report.

And you know, maybe how she would have been going about it. I don't remember any details about that.

Q. Okay. Did she tell you that she would be attempting to identify specific data points that you intended to use in your quantification?

MR. PENDELL: Object to the form.

A. At some point, you know, that was covered. I don't -- I don't -- we probably weren't so specific in March. Just to get a general sense of what her role is, what my role is, how might it work.

Probably the details were ironed out mostly by staff, I would say, in the subsequent months.

Q. Did you have subsequent conversations with Doctor Keyes?

A. Now, you asked about this, and I don't -- I don't recall that we spoke in person about this, aside from the meetings we were in together.

Q. So if I understand correctly, you said that you did speak with her at the in-person meeting in March of 2020, and that Doctor Keyes was on all of the calls with you that you listed on Appendix B-18, but you have not spoken with her since her report was issued.

Did I get that right?

A. I have not spoken with her since her report was issued, that's -- I'm 100 percent sure of that.

I'm not sure if there was some other

Keyes/McGuire conversation outside of the ones that you listed there. There may have been. I just -- I don't remember.

Q. Who are the defendants in this case?

A. Well, my understanding are there -- the -- what I would call the distributors.

Q. Who are they?

A. I'm not gonna get them all. But Cardinal, AmerisourceBergen, McKesson, and then some of the -- you know, what an economist would refer to as integrated firms like Wal-Mart, Rite Aid, CVS, that ,you know, had multiple roles in the drug distribution chain. But I'm sure --

Q. Anyone else -- I'm sorry to interrupt. Go ahead.

A. No, I'm sure there are others. I just can't recall any more at this point.

Q. Okay. So have you listed for me all of the entities that you believe are defendants in this case?

A. Well, I believe those are defendants. There -- I also believe there are more of them that I don't remember right now.

Q. Okay. So you've listed for me the

companies that you believe are defendants in this case with the proviso that you believe there are other defendants in this case that you can't name off the top of your head. Is that fair?

A. That's very fair. Thank you.

Q. Okay. On page 6 of your report, you say, quote, "My Report addresses the economic harms imposed by the sales and distribution of prescription opioids from 2006 through 2018."

Do you see that?

A. Yes, I do.

Q. Okay. It's the second sentence of Paragraph 11 on page 6.

A. I have it right here.

Q. Okay. What do you mean by "sales and distribution of prescription opioids"?

A. Well, I think these have just common meanings, that the distribution of prescription opioids is the, you know, movement from the manufacturer through the -- to the retail.

And the sales are the -- the thing that takes place when someone buys something.

Q. So as you use the terms in your report, do sales and distribution mean different things?

A. You mean is sales different than distribution?

Q. Yes. As you use the term in your report.

A. Well, they're -- they, I think, refer to somewhat different things as part of the process by which prescription opioids move from the manufacturer to the consumer.

Q. Okay. I'm just trying to understand whether when you use the phrase "sales and distribution," that's referring to one thing or it's referring to two things.

A. Oh.

Q. And I believe what you've said is it means two different things. One is distribution means the shipment of the goods from manufacturer to retail; and the sales is when someone at the retail level is -- is buying or selling something.

Is that a fair encapsulation of how you mean the terms?

MR. PENDELL: Objection.

A. Well, I -- it's -- in response to your question, I was answering -- attempting to give a kind of definition of what distribution is and what sales are. It's one, you know, kind of process in

a way in which the drugs move from the manufacturer to the retail.

I'm not sure what you're getting at in your question.

Q. Okay. When you refer to "sales and distribution of prescription opioids," you're referring to distribution as going from manufacturer to retail. Is that accurate?

MR. PENDELL: Object to the form.

A. You know, I haven't thought of this as a kind of a narrow issue. I'm pausing to think about your question.

So I would say, you know, sales and distribution - you know, unless I'm missing something subtle here that I just don't see - yes, refers to the movement of opioids from, you know, the manufacturer ultimately to -- ultimately to retail, and from there, being sold to consumers.

Q. And in this report, you are quantifying the harms imposed by all sales and distribution of prescription opioids from 2006 through 2018. Correct?

A. Well, yes. These are net harms. But yes. Other than that, I agree with your statement.

Q. And so in quantifying the harms resulting from the sale or distribution of prescription opioids, you didn't exclude any prescription opioid sales or distributions during that time period, 2006 to 2018. Correct?

A. Didn't exclude.

MR. PENDELL: I'm just going to object to the form of that question.

But you can answer, Professor.

A. Well, I considered, in total, the net harms or net costs associated with the sale and distribution of prescription opioids. I didn't think of myself as excluding anything.

Q. Right. But I'm trying to say, was there some category of prescription opioids that were sold and distributed that you excluded from your quantification of the harms?

A. No, I don't think so. I think I included everything.

Q. Did you separate out the harms that were imposed by the sales and distribution of prescription opioids from 2006 through 2018 by actors other than the defendants in this case?

A. I'll get to that, but I want to be clear.

You -- I don't object to the word "harms," but costs would be a more accurate phrase in what I came up with.

MR. PENDELL: I'll -- I'll object to the word.

Go ahead.

A. In response to your question, my assignment was not to allocate responsibility for the costs across, you know, different parties in the case.

Q. Okay. So did you separate out the economic harms that were imposed by the sales and distribution of prescription opioids from 2006 through 2018 by actors other than the defendants in this case?

MR. PENDELL: Objection to form.

A. My -- my role was to estimate the total, and I understand that not to have involved separating out the contribution of different actors.

Q. During the time period covered by your report - 2006 through 2018 - who did you understand to be the whole -- wholesale distributors of prescription opioids in Cabell County, West Virginia?

A. My understanding goes -- would be based on the defendants in this case, and that would be the basis of my understanding of who was doing the distributing.

Q. Can you list them then? Who you believe were wholesale distributors of prescription opioids in Cabell County, West Virginia between 2006 and 2018?

MR. PENDELL: Objection.

A. Yeah, I don't know the market shares - if I could use that term - in Cabell County of the role of different distributors. So I can't answer it from that perspective.

The perspective I can answer it from is who are listed defendants in the case.

Q. Okay. Were there sellers of prescription opioids in Cabell County, West Virginia between 2006 and 2018 who did not get the prescription opioids they sold from wholesale distributors?

MR. PENDELL: Object to the form.

A. I'm not sure.

Q. Okay. Are you able to identify whether there were any sellers of prescription opioids in Cabell County, West Virginia who did not get

prescription opioids they sold from wholesale distributors?

MR. PENDELL: Objection.

A. No, I'm not able to identify any seller of that category.

Q. Okay. Is it accurate to say that you quantified the economic harms imposed by the sale and distribution of all prescription opioids from 2006 through 2018 and not just the economic harms of selling and distributing prescription opioids above a certain threshold amount?

MR. PENDELL: Objection to form.

A. Yes. My understanding of my assignment would be to -- to, you know, account the net costs of all prescription opioids, you know, without attempting to segment them into various categories.

Q. So did you -- did you segment the economic harms imposed by the sale and distribution of prescription -- prescription opioids between an appropriate amount of sales and distribution versus an inappropriate amount of sale and distribution?

MR. PENDELL: Objection to form.

A. My task was to consider the total, and issues with respect to clinical appropriateness

were not within my purview in this report.

Those inputs came from elsewhere.

Q. Okay. So again, you quantified what you call the net economic harm imposed by the sale and distribution of all prescription opioids in Cabell County, West Virginia from 2006 through 2018, right?

A. That's very close. I would say, "net cost," though. But yes, it's the net cost over that time period of the sale and distribution of all prescription opioids.

Q. So you think it should say, "net costs" rather than "net economic harms"?

A. I like "net costs" better, yes.

Q. Okay. And then you didn't do anything to further separate out or segment or tease out the economic harms based on an appropriate level of sales and distribution versus an inappropriate level of sales and distribution.

MR. PENDELL: Objection to form.

Q. Right?

A. Well, that's, I think, the same question I got a minute ago, and my answer is the same: That my job was to look at the total net -- the net

costs of -- of the sale and distribution of all prescription opioids over that time period.

And issues with respect to clinical appropriateness were not part of my assignment.

Q. Okay. Did you separate out or segment out or tease out the net economic harms or costs imposed by an excessive amount of sales and distributions of all prescription opioids versus a reasonable level of sale and distribution of prescription opioids?

MR. PENDELL: Objection.

A. Well, "reasonable" and "excessive" in this context, I think, are clinical terms. At least I understand them to be clinical terms. Issues which were addressed by other plaintiff experts. I used those opinion -- opinions as inputs, but my job was to look at the total and look at the net.

Q. Okay. Without regarding to a dividing line between appropriate and inappropriate.

A. Well, that would have been factored in by the clinical experts.

Q. Okay. Without regard to the dividing line between reasonable and unreasonable.

A. Again, that would have been factored in by

the clinical experts.

Q. Without regard to the dividing line between a reasonable amount of sale and distribution of opioids versus an excessive amount of sale and distribution of prescription opioids.

A. I also hear that as a question about clinical matters, which the clinical experts would have taken into account and used -- and I would use those inputs in my report.

Q. And do you articulate the dividing line between a tolerable level of sales and distribution of prescription opioids versus an intolerable level?

MR. PENDELL: I'll object.

A. Well, I don't know what "intolerable" means, but I don't think I need to know the answer to that in your question.

That if it's a clinical matter, then, again, it was the clinical side of the expertise in this case that would have made those determinations.

Q. And do you articulate the dividing line between the amount of sale and distribution of prescription opioids that constitutes a nuisance

versus the level of sale and distribution of prescription opioids that does not constitute a nuisance?

A. You know, I wasn't asked that question. I was asked with respect --

Sorry, there's an insect trying to get on the video.

No, I was asked the question of: In total, did sale and distribution of prescription opioids constitute a public nuisance? Not whether there might have been, you know, some other situation in which they could be divided into those that were and those that were not.

Q. And when you quantify the net economic harms or the net economic costs imposed by the sales and distribution of prescription opioids from 2006 through 2018 in Cabell County, West Virginia, you're quantifying all of those, not the ones that are attributable to conduct of particular actors.

Is that correct?

A. Yes, I think that's correct. My job was to pick up the story at the point of assessing the net costs of the sale and distribution. Why that took place was not part of my assignment.

Q. So did you take any steps to eliminate from your calculations the economic harms or the costs of prescription opioids that were sold and distributed by the defendants in this case without breaching any duty?

MR. PENDELL: Objection.

A. I think the answer to that is I did not try to segment the sale and distribution of prescription opioids nor the economic costs associated with them according to a categorization of the nature of the sale and distribution.

Q. And are you offering any opinion of what portion of the net economic harms or costs you quantified are due to the sale and distribution of prescription opioids by the defendants in this case?

A. I've got the total in my report, and I -- and so I would say -- I also did not - as part of my assignment - apportion that to particular defendants. Or non-defendants. I just -- I didn't do it.

Q. And did you do any apportionment of the net economic harms or costs that were imposed by the sales and distribution of prescription opioids from

2006 through 2018 in Cabell County, West Virginia, to the unlawful sale or the unlawful distribution of prescription opioids by the defendants?

MR. PENDELL: Objection.

A. Well, I wouldn't be in a good position to say what is lawful and unlawful, but I think I can answer the question anyway.

My assignment dealt with the total, and I didn't attempt to apportion it into a category of lawful and unlawful, even if I were able to know what that meant in this case.

Q. Did you make any assessment of which sales and distribution of prescription opioids by defendants were the result of filling and shipping a suspicious order?

MR. PENDELL: Objection.

A. My -- again, my emphasis was on the total, and this would be a different way to think about a partition of the shipments and sales, and I didn't partition it in this way either.

Q. Did you make any assessment of which of the prescription opioids that were sold or distributed by defendants in this case were justified by a clinical need?

MR. PENDELL: Objection.

A. Well, certainly not at the individual level did I attempt to determine whether individual prescriptions were a result of medical need. But again, this is in the clinical realm and was something that was considered by the clinical experts in this case, and they provided helpful input into my report regarding that.

Q. Well, you didn't do it at the individual level; you also didn't do it at the macro level, correct?

A. Well, I wanted to, you know, be clear what I didn't do. And, yes, I didn't do it at the individual level. And also, yes, I relied on clinical inputs for the macro level.

Q. Did you make any assessment of which of the prescription opioids that were sold and distributed by defendants were used for scientifically-acceptable treatment?

MR. PENDELL: Objection.

A. This is a clinical question as I hear it, and my assignment had to do with the total, and issues that have to do with the clinical component of which would be acceptable, which would be

unacceptable, were dealt with by clinical experts in this case.

Q. Did you make any assessment of which of the prescription opioids that were sold and distributed by defendants in this case were taken by people pursuant to prescriptions written to them by their treating physician?

A. That's another partition of the total that I did not undertake.

Q. Did you make any assessment of which of the prescription opioids that were sold and distributed by defendants in this case were dispensed by pharmacies to patients pursuant to legitimate prescriptions written by licensed physicians?

MR. PENDELL: I'll object.

Go ahead.

A. Well, this is a new -- a different form of partition, which I did not undertake. My assignment had to do with a total.

Q. Did you make any assessment of which of the prescriptions that were sold and distributed by defendants were diverted long after they left the closed distribution system?

MR. PENDELL: Objection.

A. No, I didn't make a quantification of diversion in this case.

Q. Is the work you did based on the premise that all sales and all distribution of prescription opioids by the defendants in this case was unlawful?

A. No.

Q. Then did you differentiate at all between the economic harms or costs that were imposed by the unlawful sale and distribution of prescription opioids versus the lawful sale and distribution of prescription opioids?

MR. PENDELL: Objection.

A. I think this partition has been talked -- been asked about previously.

Again, I did not partition on this basis. I don't -- I wouldn't know how to do it. It's not within my expertise. And my assignment was to compute the net economic costs of the total.

Q. Does --

MR. KEYES: Strike that.

Q. Is reduction in pain a benefit of using prescription opioids in accordance with like scientifically acceptable clinical criteria?

A. Yes, it might be.
Q. Are opioids medically indicated for severe pain associated with trauma?
MR. PENDELL: Objection.
A. This is, of course, outside the expertise of an economist, but I've seen reports that would support that. And I believe some of the medical experts in this case also would agree with that.
Q. Are opioids medically indicated for severe post-surgical pain?
MR. PENDELL: Objection.
A. This is outside the scope of my expertise, but I think that they may be.
Q. Are opioids medically indicated for severe pain associated with cancer end-of-life care?
MR. PENDELL: Objection. Outside the scope.
A. This is outside the scope of my expertise. But they may be.
Q. Could you turn to Paragraph 56 of your report?
MR. PENDELL: Andy, at some point -- you can finish this up. But I want to take a break if we can. We've been going for a while.

MR. KEYES: Sure. Just give me a few more questions.

MR. PENDELL: No problem. No problem.

Q. Professor, are you at Paragraph 56 of your report?

A. Yes.

Q. Okay.

A. What paragraph -- sorry, wait. I was on page -- hold on.

Q. Yeah, paragraph 56.

MR. PENDELL: Page 32, Professor.

A. Yeah, I'm there.

Q. Okay. Do you see the sentence on the fourth line that says, quote, "Opioids are medically indicated for severe pain associated with trauma, post-surgery and cancer end-of-life care"?

A. Yes, I see that sentence.

Q. And you included that in your report.

A. There it is.

Q. Okay. Do you agree that opioid drugs are more effective than other pain relievers for acute traumatic pain?

MR. PENDELL: Objection.

A. No, that's way outside my area of

expertise. I'm sorry, I can't give you an opinion about that.

Q. Okay. Do you agree that opioid drugs can be critical for short-term severe pain relief in acute situations?

MR. PENDELL: Objection.

A. Oh, I don't know. They might. It's also outside my area.

Q. Do you agree that in short term acute pain situations such as during surgery or immediately post surgery, prescription opioids can be an important mechanism of pain relief?

MR. PENDELL: Objection.

A. Outside the scope. Maybe.

MR. KEYES: Why don't we take a break.

MR. PENDELL: Thanks.

MR. KEYES: Ten minutes? Go off the record?

MR. PENDELL: Sure.

VIDEO OPERATOR: Going off the record. The time is 10:28 a.m.

(A recess was taken after which the proceedings continued as follows:)

VIDEO OPERATOR: We're back on the

record. The time is 10:38 a.m. This begins Media Unit 3 in the deposition of Tom McGuire.

BY MR. KEYES:

Q. Professor McGuire, is improvement in function a benefit of using prescription opioids in accordance with scientifically acceptable clinical criteria?

MR. PENDELL: Objection. Outside the scope.

A. That's really outside the scope of my expertise. It may be.

Q. Do opioids help increase the mobility of the patient?

MR. PENDELL: Same objection.

MR. KO: Also object to the form.

A. They -- this is outside my area of expertise. It's kind of a clinical outcome sort of question. I'm not in a position to answer.

Q. Can opioids increase a person's ability to participate in life activities other than working a job?

MR. PENDELL: Objection.

A. This is something else that's outside my expertise. I really wouldn't be in a good position

to say.

Q. Can opioids be properly used to decrease a patient's anxiety about a surgical procedure?

MR. PENDELL: Objection to form.

A. That's outside my area. I really have no idea.

Q. Can opioids be used to decrease a patient's anxiety about an injury?

MR. PENDELL: Objection.

A. That's outside my area. I have no idea.

Q. Can opioids help allow a patient to have a future perspective that significant pain does not allow?

MR. PENDELL: Objection.

A. Out -- I -- that's not my area. I really -- I have no idea.

Q. Do you agree that the benefits of opioids have been proven useful in palliative care settings?

MR. PENDELL: Objection to form.

A. "Proven" sounds like a statement about randomized controlled trials in these settings, and I -- I'm really not directly familiar with that.

Q. Can prescription opioids be appropriately

used in the palliative care setting?

MR. PENDELL: Objection. Outside the scope.

A. That's outside my area. I really -- I wouldn't be in a position to say.

Q. Can prescription opioids be appropriately used to address pain experienced by patients with terminal cancer?

MR. PENDELL: Objection to form.

A. Could -- I'm sorry, I wasn't sure I got the wording of that. Would you please provide --

Q. Sure. Sure. Can prescription opioids be appropriately used to address pain experienced by patients with terminal cancer?

MR. PENDELL: Objection.

A. This is outside my area, but they may be.

Q. Can prescription opioids be appropriately used in hospice?

MR. PENDELL: Objection to form.

A. Well, of course, they can -- actually, this is outside my area. I'm just gonna say I really -- I'm not in a position to say.

Q. Did you conduct any research into the benefit of using prescription opioids for hospice

patients?

A. I would say, no, I did not conduct any such research.

Q. Did you attempt to measure the benefit of using prescription opioids with hospice patients?

A. Well, this is something that I relied on input from clinical experts for. I didn't make an independent determination.

Q. Okay. But did you attempt to measure the benefit of using prescription opioids with hospice patients?

MR. KO: Asked and answered.

A. Well, as I said in the first time this was asked, this was something that I relied on clinical input for, and I didn't make an independent determination.

Q. Did you conduct any research into using prescription opioids to address pain experienced by patients with terminal cancer?

A. I didn't conduct any of my own research on that subject.

Q. Did you attempt to measure the benefit of using prescription opioids to address pain experienced by patients with terminal cancer?

A. This is -- my answer is similar to the previous set of questions, which is that I relied on clinical input for these matters, and I didn't -- I didn't undertake any independent determination.

Q. Did you attempt to measure the benefit of using opioids in palliative care settings?

A. I also would -- in this context, would have relied on input from clinical experts, and I didn't make any independent determination.

Q. Did you attempt to measure the benefit of using prescription opioids to provide relief from acute pain suffered by mothers who had Caesarean sections?

MR. KO: Object to the form.

A. Could -- would you remind repeating that? I want to make sure I understand the form of what you just asked.

Q. Sure. Did you attempt to measure the benefit from using prescription opioids to provide relief from acute pain being suffered by mothers who had undergone a Caesarean section?

A. This is a clinical area that I relied on inputs from clinicians for my purposes. I didn't

attempt an independent determination.

Q. Did you attempt to measure the benefit of using prescription opioids to provide relief from acute pain for people who had a root canal?

A. This is the same. Clinical input was what I -- on this subject, is what I took into account. I didn't investigate root canals on my own.

Q. Did you attempt to measure the benefit of using prescription opioids to provide relief from acute pain being suffered by people who had their wisdom teeth extracted?

A. This is, again, an area in which I relied on clinical input. I didn't attempt any independent determination.

Q. Did you attempt to measure the benefit of using prescription opioids to provide relief from acute pain being suffered by people who had orthopedic surgery?

A. This is something I relied on clinical input for. I didn't attempt an independent determination.

Q. Did you attempt to quantify the benefit from using prescription opioids to provide relief from acute pain suffered by patients who had just

had surgery?

MR. PENDELL: Object to the form.

A. Again, this is a subject I would have relied on clinical input for. I didn't make an independent determination.

Q. Did you attempt to measure the benefit of using prescription opioids to decrease patient anxiety about their injury or a surgical procedure?

MR. PENDELL: Objection to form.

A. This is something I relied on clinical input for. I didn't attempt an independent determination.

Q. Did you attempt to measure the benefit of using prescription opioids to increase a patient's mobility?

A. I relied on clinical input for matters like this. I didn't attempt an independent determination.

Q. Did you attempt to measure the benefit of using prescription opioids to assess a patient's function to improve?

MR. PENDELL: Object to the form. Asked and answered.

A. You know, I don't -- I'm sorry, I don't

understand that question.

Q. Yeah, so have you -- did you attempt to measure the benefit of using prescription opioids to help a patient's functional movement improve?

MR. PENDELL: Objection.

A. Sorry. I would have relied on clinical input here. I didn't attempt an independent determination.

Q. And you've said many times now that you would have relied on the judgment of clinical experts. Did I get that right?

MR. PENDELL: Objection.

A. Yeah, with respect to the last series of questions, yes.

Q. Okay. What do you mean you "would have" relied on the judgment of clinical experts?

A. Maybe that conditional "would" could be replaced by "I did rely."

Q. Okay. What do you mean, you did rely on the judgment of the clinical experts?

A. Well, there is a particular section of my report that addresses the issue of net costs of prescription opioids from a clinical point of view, and my understanding is the clinical expert -

primarily Doctor Lembke - would have considered the questions you asked me.

They would be much better directed to her, and she provided a global answer to the question of whether the net costs -- whether there were net costs in relation to whatever potential benefits there were, and the answer was unequivocal, and the answer was the costs vastly exceeded the benefits.

Q. So you're relying on Doctor Lembke's opinion that the costs vastly outweigh the benefits?

A. I am relying on that opinion, yes.

Q. And does Doctor Lembke offer that opinion on a macro level or on a patient-by-patient level?

MR. PENDELL: To form.

A. Well, the -- you know, the macro is the sum of the patients, so I think she's -- my understanding of what she's done is addressing that for the -- at a macro level, at which is the -- you know, it's the right way in this context to think about the impact of prescription opioids.

Q. Can you point me to where in your report you rely on Doctor Lembke's judgment that the costs

of prescription opioids vastly outweigh the benefits of prescription opioids?

A. Well, I think beginning on Paragraph 63 of my report, and particularly on Paragraph 64 where it says, "far outweigh the benefits." That's my under -- that's pretty much the same thing.

Q. And -- you just referenced Paragraph 64?

A. Of my report, yes.

Q. Okay. And the excerpt from Doctor Lembke that you're referring to expresses her view "that at a population level, the risks of long-term opioids for chronic pain far outweigh the benefits"?

A. Yes, that's what I'm talking about.

Q. Okay. And here, her view is at a population level, correct?

A. Yes. That's at a population level.

Q. And she's talking about the risks of long-term opioids for chronic pain outweighing the benefits. Correct?

A. That's correct.

Q. Where does Doctor Lembke offer the opinion that the costs of prescription opioids vastly outweigh the benefits of prescription opioids when

used to treat acute pain rather than chronic pain?

A. Well, I'd have to look back through the quotes here.

Q. Okay. Are you doing that now?

A. I can do that now.

Well, in -- all right. You may not find the word "vastly" in my report, but there's several Lembke statements here that I believe support that, beginning in Paragraph 63.

The Lembke quote, "The best available evidence...found that non-opioid medications" "provide equivalent or greater pain relief, while opioids confer significantly greater risks."

Now, the way I would interpret that statement is that there are less costly ways to get the same benefits, but the cost of risks significantly -- maybe that's not vastly, but significantly exceed the benefits.

And then -- well, I could -- I'm not sure what else you want me to do here, but she goes on to say that in a clinical trial, that there's very little difference between opioids and even a placebo.

Then we talked about Paragraph 64,

which is that there's -- at the population level, for a very -- at least a very large segment of what's going on here, the risks far outweigh the benefits.

And let me just remind myself what else is going on here with Lembke for one sec.

Okay. I think this paragraph in contrast that I quote in my -- my Paragraph 65 is pretty definitive with respect to the very significant risks associated with prescription opioids in relation to alternatives which are equally effective.

Q. Does Doctor Lembke offer the opinion that opioids are not indicated for acute pain?

A. I -- gosh. Well, I'm -- I'm again looking at this paragraph to refresh myself what I said about Lembke, and there is a sentence in there that said, "Although opioids are indicated for acute pain" -- so she would --

My assumption based on that statement is that she did not say they were not indicated in all circumstances.

Q. Okay. Does -- based on your review and your understanding of what Doctor Lembke has said,

does Doctor Lembke say that the costs of prescription opioids outweighs the benefits of prescription opioids when prescription opioids are used to treat acute pain?

MR. PENDELL: Objection.

A. Well, I did come to that conclusion from this. Equivalent relief from other less risky alternatives, that would say to me the net benefits are outweighed by the cost.

Q. Are you relying on anything else in these excerpts from Doctor Lembke for your conclusion?

A. I'm relying on Lembke for this. And I also mentioned Waller.

And it's very consistent. You know, there's a -- according to my reading of Waller, there's, you know, a small set of indications, you know, in relation to a very large medical risk.

Q. Are you relying on anyone besides what Doctor Lembke said in her report and what Doctor Waller said in his report?

A. I'm relying on these two clinicians.

Q. Okay. And you are relying on those two clinicians for the proposition that all of the benefits I asked you questions about are outweighed

by the costs?

MR. PENDELL: Objection.

A. I'm relying on these clinical inputs for the statement that the net costs are positive of prescription opioids.

Q. And did you do any calculation of the benefits of these prescription opioids? Or are you, instead, just relying on what you understand Doctor Lembke and Doctor Waller to have said?

MR. PENDELL: Objection.

A. I'm relying on their opinion that the net -- that the costs outweigh the benefits and that implies to me that the net costs are positive.

Q. And are you relying on anything else besides Doctor Lembke and Doctor Waller for that proposition?

A. No, I'm just relying on -- I'm just relying on those two clinicians.

Q. And therefore having relied on Doctor Lembke and Doctor Waller for that proposition, you did not undertake to try to quantify or measure any of the benefits of using prescription opioids.

MR. PENDELL: Objection, asked and answered.

MR. KO: Objection.

A. Well, my -- my task here was to estimate the net. And the net is cost minus benefits. So if I know the net -- or I have reliable opinions that the net is on the cost side, then that tells me what I need to know as an economist, and I can then conservatively - as I did in my report - treat that as zero.

Q. Right. So to determine the net cost, you need to determine the costs and the benefits. Correct?

A. Well, that's -- I mean, in a very general way, that would be correct. And there's different realms in which that question is asked here, and one of them is a clinical realm in which I relied on Lembke and Waller.

Q. And on the cost side, you purported to independently measure and quantify those costs.

A. In some case -- well, yes, in much of my report, I did quantify those costs.

Q. And on the benefits side, rather than attempting to measure them, you are relying on Doctors Lembke and Waller for what you understand them to be saying, which is the costs outweigh the

benefits.

MR. PENDELL: Objection.

A. Well, I'm relying on the clinicians, Lembke and Waller, to consider the clinical benefits and costs of prescription opioids and to come to a determination of - from their perspective - whether the clinical costs outweigh the clinical benefits, and that's how I read their reports.

Q. Turning to the section of your report on mortality, I think starts with Paragraph 38 --

Are you there?

A. Yes.

Q. Okay. And you explain that you rely on Doctor Keyes' estimate of the number of deaths that are due to prescription opioids. Correct?

A. Yes, I see that.

Q. And when you say, "due to prescription opioids," do you mean due to the sale and distribution of prescription opioids, or something else?

A. I mean by the sale and distribution of.

Q. Okay. So you're relying on Doctor Keyes' estimate of the number of deaths that are due to the sale and distribution of prescription opioids?

A. Yes.

Q. Did you do any independent work yourself to estimate the number of deaths that are due to the sale and distribution of prescription opioids?

A. In this case, I relied on a very good epidemiologist, Professor Keyes, to provide those estimates.

Q. Right. But my question was whether you did any independent work.

A. Oh.

Q. Did you do any independent work yourself to estimate the number of deaths that are due to the sale and distribution of prescription opioids.

MR. PENDELL: Objection to form.

A. Well, the numbers here are ones that Professor Keyes provided. I obviously worked in this area to assess the costs, but the numbers are from Professor Keyes.

Q. Okay. And the numbers that Professor Keyes supplied are -- were originally set out in Table 2 of your report on page 20, correct?

A. That's correct.

Q. Okay. And looking at the numbers in Table 2, when you got these numbers from Professor Keyes,

did you do anything to see if they seemed reasonable to you?

A. Yes.

Q. What did you do to evaluate whether the numbers that Professor Keyes had supplied seemed reasonable to you?

A. Well, I think I looked at the magnitude overall in terms of what I would have expected for a community of the size of the Cabell community, and then roughly the timing of those.

I'm not surprised that they, you know, peaked in the -- whatever it is, 2017, in accordance with local reports. And I'm also -- I also would have looked at the composition in terms of direct and indirect prescription opioids.

And this also makes sense to me.

Q. So you -- when you got these numbers that are reflected in Table 2 from Professor Keyes, you did look at them, and you did --

A. Yes.

Q. -- some kind of reasonable evaluation yourself?

A. Well, I looked at them and I just, you know, saw -- sort of mentally, you do this -- that

you get the table and you just, you know, see if it makes sense to you. You look at it, and you know, if it doesn't, you would say something.

But this made sense to you.

Q. Okay. It made sense to you, and I take it then you didn't say anything to Professor Keyes about these numbers. Is that correct?

MR. PENDELL: Objection.

A. Well, I don't know if I said anything about the numbers, which is a more general question. But I don't recall any criticism of these numbers that I had -- I conveyed to her.

Q. And when you were looking at them to see if the numbers made sense, did you consult any other sources of information, or was it just on the face of it, it looked reasonable to you?

MR. PENDELL: Objection to the form.

A. I think in this case, I looked at the table and it was my own kind of review based on what I know about the situation, you know, was what I would have used to, you know, run a kind of mental check on the numbers.

Q. Okay. When you were doing the mental check and you were looking at Professor Keyes' numbers,

did it occur to you that it seemed wrong or odd that under her calculations, in 2018, 100 percent of all deaths due to opioids were due to prescription opioids?

MR. PENDELL: Objection to form.

A. No, it didn't occur to me.

Q. Okay. How about the fact that under the numbers that Professor Keyes supplied, 97 percent of all deaths due to opioids were due to prescription opioids, according to her?

MR. PENDELL: Objection.

A. Well, again, that doesn't -- it didn't strike me at the time. But I know there's a lot that are directly due and then a big chunk are indirectly due. So it didn't -- didn't strike me as odd at the time.

Q. And for your valuation of deaths, you use the value of a statistical life?

A. Yes, I do.

Q. Other than in the opioid cases in which you've been a testifying expert, have you ever used the value of a statistical life to quantify costs in a lawsuit?

A. No. This -- this is the only -- these are

the only settings in the opioid cases in which I had that as part of my assignment.

Q. Turning to Morbidity, which is a section that starts on page 22 of your report -- are you there?

A. Yes.

Q. -- you explain that you calculate morbidity costs by multiplying the number of OUD cases due to prescription opioids by the excess health care costs associated with the treatment of OUD and sequelae. Correct?

A. That's basically correct, yes.

Q. Did you independently research the number of OUD cases that are due to prescription opioids?

A. In Cabell?

Q. Yes.

A. Again, this is something that I relied on Professor Keyes for with respect to these counts. They are directly taken from her report.

Q. Okay. So did you do any independent research regarding the number of OUD cases in Cabell County that are due to prescription opioids?

MR. PENDELL: Objection to form.

A. Well, you know, I worked in this area and

used the numbers, but the numbers themselves came directly from Keyes.

Q. Okay. So you took from the Keyes report the number of residents of Cabell County with OUD?

A. Yes.

Q. And you took from the Keyes report the number of OUD cases in Cabell County that she attributes directly to prescription opioids.

A. That's correct; yes, I did.

Q. And you took from the Keyes report the number of OUD cases in Cabell County that she says are not directly due to prescription opioids but are indirectly due to prescription opioids.

A. That's also correct; I did.

Q. Did you do anything to test any of those numbers?

MR. PENDELL: Objection.

A. I read what she did. I thought it was a reasonable approach. That's -- I'm not sure what you mean by "test" other than kind of run it by yourself.

Q. Okay. In Paragraph 48 of your report, you say "In the later years, cases of OUD due to non-prescription opioids attributable to

prescription opioids make up a larger share of the total."

Do you see that?

A. I do see that, yes.

Q. What you do mean by that statement?

A. I mean that the fourth row of Table 4 accounts for a larger share of the fifth row in the later years.

Q. Why is that, as you understand it?

MR. PENDELL: Objection.

A. I assume you're not asking a mathematical question.

Q. Correct.

A. You're asking a question of what?

Q. What explains the phenomenon that you say the numbers reflect?

A. What is the underlying kind of epidemiology of disease that accounts for this? Would that be what you're trying to get at?

Q. Sure. What explains that?

MR. PENDELL: Object.

Q. As you understand it. If you know.

A. I'm waiting for my counsel to object, but hearing none --

MR. PENDELL: I did. I object. I objected. I'll be louder.

A. Well, there's -- you know, mathematically, that's not what you're asking about. You -- one level down, there's data. This is epidemiologic data that Professor Keyes is the expert in that comes in different types here with respect to OUD, that she classified as directly and potentially indirectly due to prescription opioids, and then she has an approach that - given that data - that generates these numbers.

That's, you know, one level of explanation -- that's -- the nature of her work in this is what led to this.

There's -- I suppose you can go further than that and ask what are the social processes that account for this, and, you know, there, I think it's stepping way outside my -- my expertise, so I'll just stop right there.

Q. Regarding the excess health costs attributable to OUD, you cite three studies? Correct?

A. Where -- I'm sorry, where are you now?

Q. Turn to Paragraph 53 of your report.

A. Okay. Well, that's correct. But there's more cited in Appendix C that are in the same flavor.

Q. Okay. Well, you cite the Florence study, right?

A. Yes.

Q. The Leslie study?

A. Yes.

Q. And what you describe as a recent study sponsored by the Society of Actuaries?

A. Yes. That's Davenport, is the first author of that, yes.

Q. And then you say in your report that you "primarily rely on these later two studies to quantify excess health care costs due to OUD."

A. That's --

Q. Why -- why not rely on the Florence study?

MR. PENDELL: Objection.

A. Well, it's "primarily rely," and not just the Florence, but you know, other studies have looked at this with broadly the same methodology - which I regard to be appropriate - of mass controls and come up with pretty similar answers.

What I was -- the reason that I chose

Leslie and Davenport to be my primary sources of reliance for this purpose was to take into account as best I could the fact that this is occurring in Cabell County, not nationally, and Cabell County is different than the nation in some respects that are -- will show up in data, and so I wanted to use that if I could, and these studies allow me to do that.

Q. You discuss NAS or neonatal abstinence syndrome in your report? Right?

A. Yes, I do. May I just flip to that?

Q. Sure.

A. Okay, I'm there.

Q. You acknowledge that neonatal abstinence syndrome can be caused by in-utero exposure to chemicals other than opioids, right?

A. That's my understanding, yes.

Q. So an infant can be diagnosed as having NAS even if the birth mother did not take any opioids during the pregnancy. Correct?

A. That's my understanding.

Q. Okay. Did you do any independent research into the number of NAS births in Cabell County?

A. Well, this is, again, a count area where I

was aware of your questions that you asked earlier, and this was explicitly part of what Professor Keyes was going to do.

So being this is a question of epidemiology, it was left to her, and I relied on her estimates of the number of NAS babies.

Q. Okay. So you get from Professor Keyes the estimated number of NAS births in Cabell County?

A. That's correct, I do.

Q. Did you do any independent research into what percentage of NAS births in Cabell County are attributable to the fetus being exposed to opioids?

MR. PENDELL: Object to the form.

A. Well, I don't know if "independent research" is the right term. This was a subject of discussion with some of the local medical experts who thought it was predominantly an issue of prescription opioids. But again, I didn't attempt to sort through the local and the national evidence on this, but relied on Professor Keyes to do that.

Q. You referred to "local medical experts" in your prior answer. Who are you referring to specifically?

A. You know, I don't remember. You know, it's

nothing I relied on for my opinion, and if I had, I would have, you know, done my best to write that down.

But I remember discussion with a pediatrician who thought NAS is increasing in Cabell County. It's extremely costly. There's follow-up stuff that happens that, you know, is just terrible for the baby and family, and that most of these are attributable to prescription opioids, even if not 100 percent are.

Q. For your calculations, you assume that 50 percent of the number of NAS births in Cabell County are due to opioids. Correct?

A. Well, that's how I proceed here. And I believe I described the basis for that, which was the opinion that a majority were and "majority" is a word that doesn't have a percentage associated with it, but majority is at least 50 percent in my understanding. So that's why I used 50 percent.

Q. And in your report, you say that to support your assumption, you're relying on Professor Keyes' statement that, quote, "The majority of neonatal abstinence syndrome among US infants is due to opioid exposure in utero." Correct?

A. Yeah. Well, you're reading somewhere.
Q. I'm reading from Paragraph 72 of your report --
A. Yeah, that's --
Q. -- first sentence.
A. Yeah, that's -- that sounds accurate, yes.
Q. Okay. Do you know what Professor Keyes' statement is based on?
A. Well, I would have when I had read her report, but right now, I'm -- I can't tell you.
Q. And that statement that you quote from Professor Keyes is about NAS cases among U.S. infants, correct?
A. Yes, that's correct.
Q. So it's not specific to Cabell County, right?
A. Well, it's -- it's U.S. Not -- it's not specific to Cabell County.
Q. For the other NAS cases that are not due to in-utero exposure to opioids, what are the chemicals that cause the NAS?
MR. PENDELL: Objection to form. Outside the scope.
A. I really -- probably other drugs, but it's

outside the scope of my report. I'm not in a position to say.

Q. Well, what other drugs?

MR. PENDELL: Objection.

A. Drugs that are potentially addictive, I suppose. But I -- again, it's outside my scope. I'm not sure.

Q. Okay. So you started with the number of NAS births in Cabell County, and you got that number from Professor Keyes, and then you assumed that 50 percent of those NAS births were due to opioids. Correct?

A. That's correct.

Q. And then you needed to determine of the NAS cases that are attributable to the birth mother using opioids during pregnancy, what share are due to prescription opioids. Right?

A. That's right. Correct.

Q. What does "due to prescription opioids" mean?

A. It means here the same thing it meant in the previous table with respect to morbidity. That "due to" would be either directly due to addiction due to prescription opioids or indirectly due to

prescription opioids. It's both of those together.

Q. Okay. So you're saying, "due to prescription opioids" means directly due to prescription opioids and indirectly due to prescription opioids.

A. Yes, that's a good summary.

Q. Okay. What does "directly due to prescription opioids" mean?

A. Well, it means in the context of morbidity, where this estimate comes from, that the -- that the opioid that the patient is addicted to is prescription opioids.

Q. And what does "indirectly due to" mean?

A. It means if the -- the you know, person who was ill may be addicted to some other substance - for example, heroin - that the reason they are addicted to heroin is due to prescription opioids.

Q. And what does that mean "due to prescription opioids?"

A. It means but for their use of prescription opioids, they would not have been addicted.

Q. So when you are determining the share of NAS cases that are attributable to using opioids that are due to prescription opioids, does that

mean the percentage of NAS cases that are attributable to the birth mother using prescription opioids during pregnancy, or does it mean something else?

MR. PENDELL: Objection to form.

A. Yes, it means something else.

Q. What does it mean?

A. It means the -- it's an estimate. And it's an estimate of the share of disease of opioid use disorder that is due to prescription opioids. So I have a number, using this 50 percent conservative assumption, of babies who are born with NAS due to opioids.

The ultimate question I need an answer to is how many of them are due to prescription opioids, and so that is -- is estimated by the share of morbidity in Cabell County that is due to prescription opioids in the way that is discussed around the morbidity tables.

Q. Okay. And again, those percentages are derived from numbers that you receive from Professor Keyes.

A. That's correct.

Q. You assume -- this is in Paragraph 72 of

your report. You assume that the share of NAS births due to prescription opioids is the same as the share of OUD due to prescription opioids.

A. That's correct.

Q. And the share of OUD cases due to prescription opioids is not something you calculated. Right?

A. That's again -- I -- it's whatever table it was previously. Those numbers come from -- directly from Professor Keyes' report.

Q. So you relied on Professor Keyes for the share of OUD cases due to prescription opioids.

A. Yes, I did.

Q. So you are relying on Professor Keyes for the share of NAS births attributable to opioids that are attributable to prescription opioids in particular. Correct?

MR. PENDELL: Objection to form.

A. Well, this is a question of epidemiology that we're discussing right now. Disease counts, which is -- which is the bread and butter of epidemiology. It's not the bread and butter of an economist, so I, you know, quite confidently could rely on a first rate epidemiologist to give me the

information I needed to be able to do a disease count, which is what we're discussing here.

So I relied on a very good one, Professor Keyes, to do that.

Q. What is the basis for your assumption that the share of NAS births due to prescription opioids is the same as the share of OUD due to prescription opioids?

A. Well, the basis of that assumption is that babies born with NAS are born to mothers who are -- have a opioid use problem. And of those mothers -- if you wanted an estimate of what share of those mothers with an opioid use problem are due to prescription opioids, well, we just happen to have a share estimate of that morbidity that we've computed earlier.

So that's the basis. I think it's mother's disease causes NAS; what share of mother's disease is prescription opioids. We've estimated that, so I think it's a pretty good assumption.

Q. You acknowledge that NAS can be caused by in-utero exposure to opioids that were taken by the birth mother as prescribed. Right?

MR. PENDELL: Objection.

A. I actually don't know the degree to which -- you know, what level of risks are associated with different things. I -- it's not something I can help you with.

Q. Well, I'm not asking you to quantify anything. I'm -- my question is: Do you acknowledge that NAS can be caused by in-utero exposure to opioids that were taken by the birth mother as prescribed?

MR. PENDELL: Objection to form. Outside the scope.

A. You know, I'm sorry, I don't really know.

Q. Okay. Would you look at page -- Paragraph 67 of your report? Are you there?

A. Yes.

Q. Okay. Second sentence of Paragraph 67 in your report says, quote, "It" - meaning NAS - "can occur due to any regular antenatal opioid use, including whether opioids are taken as prescribed or non-medically." Do you see that?

A. I see that.

Q. Okay. So NAS can result from a birth mother's use of opioids pursuant to a prescription.

A. Well, it looks like that there's at least

some reference to support that statement.

Q. And so when you acknowledge that NAS can occur due to any regular antenatal opioid use - meaning use before birth - including when opioids are taken as prescribed, you're acknowledging it can result from opioid use taken pursuant to a prescription written by a licensed physician.

Correct?

A. Yeah, it looks like that's possible.

MR. PENDELL: Objection.

Q. How many of the NAS cases included in your quantification involved the birth mother taking opioids as prescribed by her licensed physician?

MR. PENDELL: Objection.

A. Well, this is -- you're coming back to questions of epidemiology where I'm kind of on the edge on this. And again, this is something that Professor Keyes would have considered and dealt with, and I use her numbers.

Q. Okay. Does she address how many of the NAS cases included in her count involved the birth mother taking opioids as prescribed by her licensed physician?

MR. PENDELL: Objection to form.

A. I'm not sure how she went this -- about this. So I'm -- I can't tell you right now.

Q. Do physicians on occasion prescribe an opioid to a pregnant woman to help her manage a preexisting addiction during pregnancy?

MR. PENDELL: Objection to form.

A. I'm not really in a position to say.

Q. You don't know one way or the other?

A. I don't know one way or the other.

Q. How many of the NAS cases included in your quantification involved babies who are born to a birth mother who was taking a prescription opioid as prescribed by her licensed physician to help her manage a preexisting addiction during pregnancy?

MR. KO: To the form.

MR. PENDELL: Objection, yeah.

A. Well, that's very far into the weeds. That also would have been something that Professor Keyes took into account. The epidemiologist, not the economist.

Q. Did Professor Keyes' count of NAS cases account for babies who were born to a birth mother who was taking a prescription opioid as prescribed by her licensed physician to help her manage a

preexisting addiction during pregnancy?

MR. KO: Objection to form.

MR. PENDELL: Objection.

A. Well, again, I don't recall exactly what Professor Keyes did, but her statement that the majority of NAS cases are due to OUD is one that, you know, allows for lots of other situations in which a baby may be born with NAS.

So there's nothing inconsistent with the statement that the majority are if you have examples that sometimes it is not.

And I would have expected Professor Keyes to, you know, be aware of the "sometimes they are not" and I'm sure she was, so there's no reason that what you're -- this -- sort of these questions, are ones that would cause me to doubt the reliability of the assumption that -- my conservative assumption that 50 percent only of the NAS cases are due to opioid use disorder.

Q. Are you drawing a separation between mothers who have opioid use disorder and mothers who are taking a prescribed opioid to help manage a preexisting condition?

A. Well, that's again a question of

epidemiology. And if the person -- if the mother has opioid use disorder, then -- and you have a NAS baby, that may well have been due to prescription opioids.

But the distinction between who is taking and who has OUD is one that is also squarely within Professor Keyes' expertise, and I know she addressed that in her report.

Q. You purport to value the economic harm from child maltreatment by multiplying the number of victims where prescription opioids were involved by the costs associated with this maltreatment. Correct?

A. That's broadly correct, but give me a hint about where this paragraph is.

Q. Sure. Paragraph 100.

A. Well, okay. It's -- yes, I'm there.

Q. Okay. Do you see that sentence at the beginning of Paragraph 100?

A. Yes.

Q. Okay. What is the definition of "maltreatment" when you're attempting to value the economic harm from child maltreatment?

A. This is a field of child welfare, and

"maltreatment" can be neglect or abuse. And I think we know what those mean.

Q. Did you pull any data from any Cabell County source about the number of children who are maltreated in that county?

A. Well, my methodology is here. And I know I had to use some West Virginia numbers for some percentages, and then the data I used for Cabell had to do with the number of kids in Cabell.

Q. Right. But my question is specific. Did you pull any data from any Cabell County source about the number of children who are maltreated in that county?

MR. PENDELL: Objection to form.

A. Well, the number is Cabell data; the number of kids is Cabell data. The share of kids who are maltreated is a West Virginia number.

Q. Okay. Did you look for any data specific to children in Cabell County who are maltreated?

MR. PENDELL: Objection to form.

A. I think I probably would have been interested in that. I don't remember -- I don't remember the details. But I know -- remember asking that question and determining that this was

the best source of an estimate.

Q. So what -- when you -- when you looked for data specific to children in Cabell County who were maltreated, what did you find?

A. See, I don't remember the details of what -- the limitations or availability of local data would be with respect to maltreatment, so I'm sorry, I don't remember.

Q. So the analysis you did relied on data you pulled from the Department of Health and Human Services Administration for Children and Families?

A. Well, that's some of the data, yes.

Q. Okay. And where does the Administration for Children and Families get its data?

MR. PENDELL: Objection to form.

A. I believe from child welfare agencies.

Q. In the various states?

A. In the various states.

Q. Did you --

A. Sorry. Excuse me. There could be other -- there could be other sources. I'm not 100 percent familiar with it.

Q. Okay. Do you know where else, if anywhere, the Administration for Children and Families gets

its data other than from child protective agencies in the states?

MR. PENDELL: Objection to form.

A. I have to go -- I'd have to go back and look. I don't recall right now.

Q. Okay. Did you seek any data from any child protective agency in West Virginia?

A. I don't think I made any direct requests that I remember.

Q. Okay. So you went to the Department of Health and Human Services Administration for Children and Families and you requested data for West Virginia?

A. Yes.

Q. Okay. And you say that you could -- you could not get data from the Administration for Children and Families for certain years. Correct?

A. That's also correct, yes.

Q. So the Administration for Children and Families was not able to provide West Virginia data for 2006, 2007, 2008, 2009, 2013 and 2015. Correct?

A. Well, I'm -- if you don't mind pointing me to where you're seeing that.

Q. Sure. Why don't you look at your Footnote 183.

A. Yes, okay. Your statement --

Q. Okay. And so for those years - 2006, 2007, 2008, 2009, 2013 and 2015 - you had to estimate counts for those years, correct?

A. That's correct, yes.

Q. Okay. So having gone to the Administration for Children and Families and gotten its data for West Virginia for certain years, but not all of them, you then estimated counts for the missing years.

A. That's correct.

That's my phone. Sorry. I'm ignoring it.

Q. It is? Okay.

A. Yes.

Q. I was checking my phone just in case.

A. Yes, I could tell. Everyone was probably, "Oh my gawd, I got a call."

Q. And then you -- based on the data you have and extrapolating across the years for which you did not have data, you estimated the number of first-time victims of child maltreatment with a

drug abuse risk factor. Correct?

A. That's correct.

Q. Did you assign the drug of use risk factor to those first-time victims?

A. That's in the data.

Q. That's in the data you got from the Administration for Children and Families?

A. Yes.

Q. Does the Administration for Children and Families assign the drug abuse risk factor?

MR. PENDELL: Objection to form.

A. Well, it would have been from whatever data source would have done that assignment. I don't think they did it at that level.

Q. Okay. So you didn't assign it, and you don't think the Administration for Children and Families assigned it? Do you think it's in the data that was reported to the administration for child and families?

A. That would be my assumption, yeah.

Q. Okay. And so for the West Virginia data, you believed the drug abuse risk factor would have been assigned by a child protective agency for West Virginia?

MR. PENDELL: Objection to form.

A. Whatever the reporting agency is. I'm -- that's really all I can say.

Q. What child protective agency or agencies in West Virginia provided the data that the Administration for Children and Families has for West Virginia?

MR. PENDELL: Objection to form.

A. I'd have to go back and look. I can't tell you off the top of my head.

Q. Okay. And what does a drug abuse risk factor mean in the data for West Virginia?

A. It means a caregiver - who is, in this context, mostly parents, but not always parents - uses drugs.

Q. Who -- who assigns the drug abuse risk factor to a particular case?

MR. PENDELL: Objection to form.

A. Now, here again, it's a little bit more detailed than I can answer right now. Caseworker, but I'm not sure.

Q. Okay. And you believe it's a caseworker?

MR. PENDELL: Objection.

A. I said it could be a caseworker. I'm not

sure who does the assignment of the data.

Q. If not a caseworker, who would assign the drug abuse risk factor to a particular case?

MR. PENDELL: Objection.

A. Well, it could be someone who gets a report from a caseworker and then makes a determination.

Q. And what are the criteria used for deciding whether to assign a drug abuse risk factor to a particular case?

MR. PENDELL: Objection to form.

A. That's, again, more detailed than I can answer off the top of my head.

Q. Does it require a finding that the maltreatment was caused by drug abuse by a caregiver?

MR. PENDELL: Objection to form.

A. Again, I'm not sure. It's too much detail for me to know sitting here.

Q. Does it require a finding that there was drug abuse by someone in the family?

MR. PENDELL: Objection to form.

A. This is too much detail. I'm sorry. I can't answer that question now.

Q. Can a drug abuse risk factor be assigned to

a case based on assess -- an assessment that there was a risk of drug abuse by the caregiver or the family?

MR. PENDELL: Objection to form.

A. I'm not sure I totally understand the question, but I do -- I do think it's probably too much detail for me to be able to answer.

Q. Okay. I'm trying to understand - based on your understanding of this data - how is a drug abuse risk factor assigned to a particular case? Is it that someone has concluded that in fact there was drug abuse? Or is it that the child's home or the child's caregivers are at risk of abusing drugs?

MR. PENDELL: Object to the form.

A. My understanding, it's the former, not the latter.

Q. What is your understanding based on?

A. It's reading the material that fed into this analysis.

Q. What material?

A. The report that we've been referring to.

Q. The report from the Administration for Children and Families?

A. Yes.

Q. Okay. What -- where is that report cited in your report?

A. Probably here, but certainly -- it's right in 183 -- Footnote 183 but -- and Footnote 176 and elsewhere.

Q. You then estimated the percentage of first-time victims with a drug risk factor who live in Cabell County. Correct?

A. Correct.

Q. And you did that by comparing the total number of children in Cabell County to the total number of children in West Virginia?

A. Give me a paragraph, please, I'll -- then I'll confirm.

Q. It's Paragraph 103 again, if you need a reference.

A. Well, it just helps me to take a look.

Yes, that's what I did.

Q. Okay. So you -- you calculated a ratio of the total number of children in Cabell County to the total number of children in West Virginia and then you applied that ratio to the total number of first-time victims with a drug abuse risk factor to

identify the percentage of those victims who live in Cabell County?

A. That's basically correct. And if I could just editorialize a little bit on this method, it's conservative.

Cabell has it worse than the state, so I felt that (Zoom audio glitch) figures derived in this way are probably a lower bound than what the real numbers are.

Q. You said Cabell county has it worse -- worse than the rest of the state --

A. In terms of the impact of the opioid crisis.

Q. Okay. Including with respect to child maltreatment.

A. Including with the things that the opioid crisis causes, including child maltreatment.

Q. So you -- you assume there's no variation in the rate of child maltreatment across West Virginia?

MR. PENDELL: Objection to form.

A. No, I didn't assume that. I assumed that the West Virginia numbers were a undercount of what I was going to see in Cabell. And so using the

West Virginia numbers, give a informative estimate, and it's an informative -- I would call a lower bound of what the numbers are.

So when I'm interested in computing a net cost number or I'm counting children who are maltreated and then assessing the cost to those children, I come up with a number that is -- I mean, the quote/unquote real number would be at least as big as that.

Q. So you now -- at this point in your methodology, you've identified the number of first-time victims with a drug abuse risk factor who live in Cabell County. Right?

And then the next step was to determine the percentage of those victims where the drug involved opioids?

MR. PENDELL: Object to the form.

A. That's correct.

Q. And you did that by -- by applying the percentage of drug seizures that involved opioids?

A. Yes, that's also correct.

Q. What is your basis for using that percentage as a -- as a proxy for the drug abuse risk factor involving opioids?

MR. PENDELL: Objection.

A. Well, it's a -- I think it's a reasonable estimate of the share of overall drug. So I have from the West Virginia data drug abuse risk factors, and I don't want to be, you know, overly -- I don't want to count too much and attribute all of that to opioids. Even though in Cabell County, I think it could be said with confidence that opioids, in relation to drug abuse, are much higher than it would be on the national level.

So that's sort of underlying thing that's feeding into my thinking here. And so if I take a national number that is the ratio of opioid to other drugs - which I can get through this seizure reporting information - that, again, is a -- an estimate I can be confident is a lower bound on what that ratio would be in Cabell County.

So that's -- that's how I can confidently use a national number.

Q. And then you attempt to estimate the percentage of first-time victims with a drug abuse factor who live in Cabell County where the drug involved opioids that are attributable to prescription opioids.

A. Yeah, I had to go through --
Q. Is that correct?
A. I had to do that too.
Q. Okay. And so you take the number of first-time victims with a drug abuse risk factor who live in Cabell County where you believe the drug involved opioids, and you multiply it by the opioid morbidity attributable to prescription opioids, again using the numbers that you got from Professor Keyes.
A. That's what I did, yes.
Q. Okay. And as a result of this, your calculations purport to show that 97.5 percent of all child maltreatment cases in 2006 are attributable to prescription opioids.
A. I'm sorry, where are you now?
Q. Well --
A. That doesn't sound quite right, but let me -- where are you finding those numbers?
Q. Well, let's go back to --
A. If you say it again, maybe I can figure out --
Q. Well, I'm trying to find table --
A. I see that the numbers in Table 9, you have

to look back at Attachment C to figure out where they came from.

Take a look at Table 9.

Q. Yeah.

A. 3, 2, 2, 4. This methodology doesn't lead to - on the face - what seemed to me to be too high. If anything, I see 2011, four kids in Cabell County maltreated because of prescription opioids?

I know that's kind of a impression, but that's -- if you're trying to argue that that's an overestimate, I don't know. I just don't know where you're coming from.

Q. I'm not arguing anything. I'm asking you questions.

A. I know. But if you're trying to make that point and you see four in 2011, I don't know. I just don't know.

Q. So the number -- the figures in your Table 9, the first row, you're saying that's the number of children who are maltreated by someone who was, what, using prescription opioids?

A. No, this is -- no. It's -- it's analogous to the questions I tried to address earlier. It's the maltreatment due to prescription opioids with

the kind of model or idea that prescription opioids can cause disease, and it's people who are ill with opioid use disorder - either directly or indirectly due to prescriptions - who are those that provide -- who that create a risk to a child.

And so it's prescriptions, to disease, to risk of maltreatment. And you know, the various factoring down that we've been discussing -- you factor down because not all drugs are opioids; you factor down because not all opioids are prescription opioids, then --

But with that factoring down of the number of children who are maltreated, you come up with these numbers. That's -- that's the basic idea here.

Q. You submitted an errata sheet on August 24th, 2020, correct?

A. Yes, I did.

Q. Do you have a copy of that errata sheet in front of you?

A. I can put one in front of me.

Q. Please do so.

A. Okay.

Q. Do you have it in front of you?

A. I do, yes.

Q. Okay. And the errata sheet appears to have two sections. One section is titled "Harm Valuation Changes." Right?

A. Yes.

Q. And the other is titled "Typographical and Citation Changes." Right?

A. That's correct.

Q. Okay. Is it accurate to say that all of the harm valuation changes listed in this errata sheet are the result of getting new numbers from Professor Keyes?

A. Well, I listed here the reason. And in every one of the cases in that Harm Valuation Changes, it's due to an input change from Doctor Keyes, Professor Keyes.

Q. When did you get these input changes from Professor Keyes?

A. I think it was about a week later. A week after the submission of her original report.

Q. Okay. So roughly August 10th?

A. Yeah. I'm not sure exactly, but not long after.

Q. And what did you get on August 10th? Did

you get a revised report that had new numbers?

A. No. I got a revised set of in -- what I would call the input numbers. In the form -- it comes in an Excel spreadsheet.

Q. Okay. And who supplied that Excel spreadsheet with the new numbers that were input changes from Professor Keyes?

A. Someone that works with Professor Keyes.

Q. Okay. And prior to receiving that spreadsheet, had you received a heads-up that Professor Keyes was revising the numbers in her report?

A. I don't think so. But -- no, I didn't receive a heads-up.

Q. Prior to receiving the spreadsheet, were you aware that the numbers in Professor Keyes' original report were inaccurate?

A. No, I was not.

Q. When you got the spreadsheet, what did you do with it?

A. What my staff did with it was to substitute the previous input numbers that we'd been using from Professor Keyes that, you know, flow through the report. And I think you can see with all the

changes that are necessary from the change in Professor Keyes' numbers that, you know, the inputs change, and then there's a series of Excel files that produce tables and figures that themselves changed.

So thankfully, to the magic of Excel, you know, one is able to do something like that relatively quickly.

Q. So did -- did someone on your team input the updated corrected figures from Professor Keyes into your -- your report?

A. That -- I mean, that's -- it sounds a little bit more by hand than it actually was. But yes. The inputs came from Professor Keyes, and then they were fed into the Excel spreadsheets that produced the tables in my report.

Q. When you got the spreadsheet from Professor Keyes with the updated corrected numbers, did you follow up with Professor Keyes to understand what led to those changes or corrections?

A. I asked my staff about this. I didn't talk to Professor Keyes directly.

Q. Who on your staff did you ask?

A. Adrian Garcia.

Q. And what did Adrian tell you?

A. Well, there was two kind of groups of -- if I can call them corrections, to Professor Keyes' report, one having to do with morbidity, and there -- there was a year - a single year, 2010 - where something was .053 and it should have been .043. I can't remember exactly what the entry refers to.

But that, I understood to have been a typo. That someone on her end had entered in the wrong number.

Then the other source of corrections had to do with mortality, and it had to do with a subset of the years of mortality from 2013 to 2018. And my understanding of what happened there is that on Professor Keyes' end, there was an inadvertent inclusion of a table that wasn't -- or a figure that wasn't the final figure, so it --

That -- it's kind of a mistake, but I don't know beyond -- that's my understanding of what -- that's what Adrian explained to me.

Q. Okay. So what you've offered is what you heard from Adrian, not what you heard from Professor Keyes.

A. That's correct.
Q. And there were two groups of corrections: The first one involved morbidity and the second one involved mortality?
A. That's correct.
Q. And for the second category, mortality, you said there was an inadvertent inclusion of a nonfinal figure in Professor Keyes' calculations for Years 2013 through 20118?
A. Some -- yeah, something like that.
Q. And who -- who identified the error?
MR. PENDELL: Objection to form.
A. I'm not sure.
Q. Who on Professor Keyes' team corrected it?
MR. PENDELL: Objection to form.
A. I'm also not sure about that.
Q. Okay. And then after Adrian Garcia told you of these errors, did you give Adrian instructions on how to revise and update and correct your report?
A. Yes.
Q. And how long did it take for Adrian to update your report based on the corrected figures from Professor Keyes?

A. An amazingly short period of time. I don't know in terms of days or hours, but not long. You know, once the inputs -- the input Excel files are set up, the actual -- you know, producing the actual Excel results happens, you know, very quickly.

And then the report has to go in and be modified, numbers changed and narrative changes. That takes a little bit longer.

But I was in -- I guess I'm not shocked, but I was impressed how quickly the whole thing could get turned around.

Q. So having received the spreadsheet from Professor Keyes on August 10th or so, when was your revised report finalized?

A. Oh, gosh. When it was submitted. I don't remember exactly the date.

Q. Okay.

MR. PENDELL: Andy, I didn't want to interrupt this line of questioning, but at some point, if we could think about lunch. We've been going for a while, and I don't know if Professor McGuire is hungry, but I definitely am.

MR. KEYES: Sure, sure, okay.

Q. The second set of changes in the errata sheet are corrections of citations and corrections of typographical errors?

A. Yes.

Q. And who identified those errors as issues that needed to be corrected?

A. This was my staff at Greylock McKinnon.

Q. I'm sorry, your staff and what?

A. Some member of the staff at Greylock McKinnon. I don't know what individual actually did it.

Q. Okay. And since submitting this errata sheet on August 24th, have you identified any other errors?

A. No, I haven't.

Q. Okay.

MR. KEYES: Let's go off the record.

VIDEO OPERATOR: Going off the record. The time is 12:04 p.m.

(A recess was taken for lunch after which the proceedings continued as follows:)

VIDEO OPERATOR: This begins Media Unit 4 in the deposition of Tom McGuire. We're

back on the record. The time is 12:56 p.m.
BY MR. KEYES:
Q. Professor McGuire, you have a section on the economic harms that result from crime that are attributable to or due to prescription opioids. Can you walk us through how you estimated the number of crimes in the Cabell/Huntington community that are attributable to the sales and distribution of prescription opioids?
A. Okay. I'm going to open my report to that section, and I'll essentially step through the analysis there. So let me just get there first.
Q. Sure.
A. Okay. So it begins at Paragraph 78. And I'll give you a high level overview, Counsel, and then whatever you want to follow up on, then we can talk about that.
So at a high level, the idea is similar to the approaches that have been taken to the other areas of harms and costs, and it's in two parts. The first part is to do the count part, which is to - in this case - estimate the number of crimes in the Cabell/Huntington community that are attributable to prescription opioids, and then to

value them in terms of dollars to get a net cost.

And I understand you're asking about the first part.

Q. Correct.

A. So -- I can keep talking if you want.

Q. No. So my question is about the first part.

A. Okay.

Q. How did you estimate the number?

A. That's what I thought. And with regard to the number, the initial step is to obtain a count of the total crimes in the Cabell/Huntington community that -- from all the law enforcement agencies over this time period.

And that involves a kind of national incidence-based reporting system which is -- I think it's maintained by the FBI.

-- that does that -- that collects that information. But the reporting to that is -- my understanding is voluntary. So not all the LEAs - which are the law enforcement agencies - who would have information about crimes in this community would necessarily report to the FBI each year.

So I started with the national data

that's reported by the local agencies, and then I noticed which agencies and which years were not reported, and then I went to those agencies directly - or my staff went to those agencies directly - and requested the information.

And in a number of cases, we got that information. So that was added into the aggregate.

And as you know from my report, the reporting of crimes is in various categories. Even after this follow-up, not all law enforcement agencies were able to provide us with the data, so there's -- we're missing some, which makes what I've done undercount.

But what I have is the ones that reported to the NIR -- NIBRS and then the ones that reported to us directly.

So that gives kind of a total: Here are all the crimes that were in the Cabell community during this time period.

And then the question I was interested in is: What share of those crimes can be attributable to prescription drugs? And here, I treated the try -- crimes -- sorry -- in two different categories. One is drug-related crimes,

and the other is what you would call - I don't know - nondrug-related crimes.

Or sorry, drug crimes and other crimes.

Drug crimes are all due to drugs. Then the -- I had to step down from all drugs to opioids, then from opioids to attributable to prescriptions. So that was done in two steps. And we can talk about those if you'd like.

And then in the case of the nondrug crimes, some of those will be due to drugs and some of them to prescription opioids ultimately, and there was three steps.

I had to go from the count -- crime count itself and derive the share of those that was attributable to drugs, and then among those attributable to drugs, what share of those were attributable to opioids, and then among those that were opioids, what share were attributable to prescription opioids.

So it's a -- I guess a two-step process with respect to the drug crimes and a three-step process with respect to the nondrug crimes.

Q. Okay. You said that you started with the data from the National Incident-Based Reporting

System or NIBRS?

A. Yes. That was one of the sources.

Q. And you started with the data from NIBRS for Cabell County, but there were some gaps in that information, and so your staff requested data directly from certain law enforcement agencies?

A. That's correct, yes.

Q. Who on your staff made that request?

A. I believe it was Adrian Garcia.

Q. And what specifically did Adrian Garcia request from those law enforcement agencies?

A. He requested the information that would have been reported to the NIBRS.

Q. Okay. And did the data that he received from these law enforcement agencies identify which of the crimes were drug-related?

A. Well, some. The -- and some are drug crimes. So to that degree that -- yes, this is the same classification that the NIBRS uses.

Q. But for the crimes that are reported outside the category of drug crimes, did the data show which of those crimes were drug-related?

A. No. The data at that level did not show that, which was why the -- with respect to the

crimes in that category, there were three steps instead of two and the methodology I described a few minutes ago.

Q. Okay. And then for the data that you received from NIBRS for Cabell County and the data you received directly from the law enforcement agencies in Cabell County, whatever drug crimes were reported, you said they're 100 percent due to drugs.

A. That's right.

Q. And for all the drug -- all of the crimes in the other categories, you then needed to estimate the percentage of crimes in each category that could be attributable to any kind of drugs. Right?

A. That's correct. That was the first step in that last category, yes.

Q. And to do that, you took the percentage of all crimes in each category that are attributable to drugs as provided by the U.S. Department of Justice National Drug Intelligence Center?

A. I believe that's correct. If you want me to confirm that precisely, I can do that if you remind me where this is happening in the report.

Q. Well, you say that in Paragraph 23 of Section 4, Appendix C.

A. Okay.

Q. Tell me when you're there.

A. I'm there.

Q. Okay. Are you in Appendix C --

A. I'm sorry.

Q. -- Section 4, Paragraph 23?

A. Yeah, I'm looking at it now.

Q. Okay. And you say, "I adjust the number of crimes identified in the NIBRS data and individual" law enforcement agencies "to estimate crimes attributable to prescription opioids in three steps. First, the percent of all crimes in each category that can be attributable to drugs (opioids and non-opioids) is taken from the" U.S. Department of Justice National Drug Intelligence Center."

See that?

A. Yeah, I'm following along.

Q. Okay. So is that statistic a national statistic of what percentage of crimes in each category are attributable to drugs?

A. I think it is a national statistic, yes.

Q. Okay. Did you undertake to find any

similar statistic that was specific to West Virginia?

A. I don't remember. I don't think so. This, again, would have been a lower bound, because West Virginia and Cabell in particular are harder hit than the rest of the country.

Q. And did you undertake to review any Cabell County-specific data to determine the percentage of crimes in each category that are attributable to drugs?

A. Yeah, I think the same answer. The -- I wasn't aware of any such data, and the national data, I'm very comfortable with as being a lower bound on what's going on in Cabell.

Q. And then having estimated the share of crimes that are drug-related, you then wanted to estimate the share that are opioid-related, right?

A. That's also correct, yes.

Q. And you say here in Paragraph 24 that you followed the methodology in the Florence study.

A. Yes.

Q. Okay. And what was that methodology?

A. Well, I think the next sentence explains that. This is drug seizures. The methodology was

from Florence. The data come from LEAs in Cabell.

Q. All right. So what was the methodology?

A. Well, the methodology is to look at drug seizures and attribute to opioids the share that they comprise of drug seizures.

Q. Okay. And so where did you look at the Cabell-specific data to determine what percentage of the drug seizures were seizures of opioids?

A. Well, it has -- this -- the next sentence describes that, in the National Forensic Laboratory Information Service.

Q. Okay. And what does the National Forensic Laboratory Information Service provide regarding drug seizures in Cabell County?

A. Well, I would have to go back and check what level of aggregation this is, geographic. I'm not sure right now.

Q. Okay. Was it specific to Cabell County or was it state-wide for West Virginia?

A. I -- I'm doubtful that it was Cabell. So it's more likely to have been state.

Q. Okay. Was it state-wide data or was it national data?

A. You didn't tell me I was going to have

three choices. I -- I'm actually not sure. I'd have to go back and look.

Q. Okay. But you did then estimate the percentage of drug-related crimes that were opioid-related, and your third step was then to determine of the opioid-related crimes, what percentage are attributable to prescription opioid sales and distribution?

A. That's -- that's the -- that's right. That's the third step.

Q. Okay. And that third step then uses the rate of OUD that's attributable to prescription sales and distribution as calculated and reported by Professor Keyes. Correct?

A. That's also correct, yes.

Q. Okay. So you undertook to identify the number of crimes in each category. You undertook then to determine a percentage of the crimes in each category that are drug-related.

You used some data from the National Forensic Laboratory Information Service to determine what percentage of the drug-related crimes were opioid-related; and then of the opioid-related crimes, you determined what

percentage were due to prescription opioid sales and distribution by using the percentages that Professor Keyes had derived.

Correct?

MR. KO: Object to the form.

A. I employed a three-step process that you've summarized there pretty well.

Q. In -- in the section on the impact of the sale and distribution of prescription opioids on property values, you offer the opinion that you had already calculated that prescription opioids were responsible for 7.2 percent of total crimes in the Cabell/Huntington community over the period of 2006 to 2018.

Did I get that right?

MR. PENDELL: Where's that in the report?

MR. KEYES: Paragraph 97.

MR. PENDELL: Thank you.

A. That's the right number. I remember that number.

Q. Okay. Tell me when you're at Paragraph 77 -- 97.

A. I'm there.

Q. And do you see in Paragraph 97, you say, "The first causal link, between prescriptions and crime, has already been covered in Section III.D. Overall, I calculate that prescription opioids were responsible for 7.2% of total crimes in the Cabell/Huntington Community over the period of 2006 to 2018."

A. Okay.

Q. Did I read that correctly?

A. I'm -- yes, you did.

Q. Okay. And then you make the assumption in your analysis that 7.2 percent of total crimes going forward will be prescription opioid-related. Correct?

A. That's correct, yes.

Q. What is the basis for that assumption, that 7.2 percent of total crimes going forward will be prescription opioid-related?

A. Well, it's the -- I had the very good basis of what the last 12 years have done.

Q. Okay. And --

A. So sorry to --

Q. -- you're saying that the next 12 years will be the same as the last 12 years?

A. Well, I -- the -- it's -- I think it's a very reasonable assumption that the percent that's been characterized in this community over the past 12 years is a reasonable estimate of what it will be going forward.

Q. And why did you choose that 12-year period?

A. The 2006 to 2018?

Q. Yes. For this -- for this category of alleged economic harm or cost.

A. For the -- with respect to the property values, you're asking?

Q. Yes.

A. Well, that was using all the data I had.

Q. Okay. You then estimate that for every 1 percent increase in total crimes, there's a quarter of a percentage point decrease in property values? Did I get that right?

A. You did get that right. This was not an estimate I conducted; it was one that came from a paper in the literature.

Q. What paper was that?

A. I don't know if it's here or in the appendix. Probably in the appendix.

Q. Do you recall the study offhand, without

looking at your report?

A. I remember what the study did. It looked at -- the county-level study. And it -- multiple years, and looked at crime rates and how they correlated with property values.

But I --

Q. You --

A. -- my report to give you more than that.

Q. It's referenced in Appendix C, Paragraph 37.

A. Okay.

Q. Are you there?

A. Yeah, I'm there.

Q. Okay. Do you see in Paragraph 37, you refer to the Pope and Pope study?

A. Yes.

Q. Do you rely on anything besides the Pope and Pope study for your decision to estimate that for every 1 percent increase in total crimes, there is a quarter of a percentage point decrease in property values?

A. Well, yes, I had a brief discussion here of other papers that fall in that literature that establish a causal connection between crime and

property values.

Q. Okay.

A. And --

Q. Let's --

A. Just one more sentence. The Pope and Pope result was one that I could use in my analysis.

Q. Okay. You reference other studies. But do you reference any other studies that report or quantify the relationship between a percentage decline in crime and increased home values or a percentage increase in crime and a decrease in home value?

MR. PENDELL: Objection to form.

A. I'm just taking a quick look.

Q. Please do.

A. I mean, the other studies that I referenced here don't build a percentage, as I recall them. I mean, I --

Q. What other studies are you referring to when you say you reference other studies?

A. Well, the ones in Paragraph 36. The effect of crime on property values. There's support for that in the economic literature.

Q. Okay. And do any of those studies that are

referenced in Paragraph 36 quantify the link between an increase in crime and a decrease in home value or a decrease in crime and an increase in home value?

A. Well, they do, but they're specific to particular kinds of crime, and the -- you know, my task here was to not look at sex offender crimes, but it was to look at in general if there was a decrease in crime.

Q. And the Pope and Pope study looked at property values in certain zip codes in the 1990s, correct?

A. That's correct.

Q. Did you look at any study since the Pope and Pope study that looked at the relationship between crime rates and property values?

A. No. If I had, I would have put it down here.

Q. Okay. And your quantification here is reflecting the depressed property values in the Cabell County area that are the result of the expectation that crime will continue in the future at the same rate it's continued in the past. Correct?

A. No, I wouldn't say that.

Q. What's wrong with that statement?

A. What this -- it -- the statement is too strong in terms of what the assumption is. The assumption is that this is a percentage. So whatever expectation there is about crime - which could be that it's trending down, for example - there would be the -- you know, withdrawing the causal effect to prescription opioids would reduce that by 7.2 percent.

Is that clear?

Q. Say that again? Please.

A. The assumption is that the reduction in prescription-related crimes, if those were withdrawn, would reduce the level of crime by 7.2 percent.

It doesn't assume that the level of crime is constant from the past.

Q. It assumes that the share of total crimes attributable to prescription opioids will be 7.2 percent in the future as it was between 2006 to 2018.

A. That's the assumption that's necessary for me to make that calculation, yes.

Q. Right. And you assume that because the share of total crimes attributable to prescription opioids will continue to be 7.2 percent, it will continue to depress the market value of homes by a quarter of a percentage point for each of those 7.2 percentage points.

A. Yeah, that's basically correct, yes.

Q. Okay. And the reason the market values are depressed is because of the expectation that crime will continue at the same rate in the future.

A. See, that's the part that's not correct.

Q. Why not?

A. Well, I explained that. The formula that I use to predict the effect on property values is done in percents, so it's the percent reduction in crime is what needs to be -- the percent reduction due to prescription opioids, that I assume is the same going forward.

But once I know that percent, then I'm able to use the information from Pope and Pope to yield a percent decrease in property values that's caused by the prescription opioid property-related crime.

So I don't need to know people's

overall level of crime expectations; it's just this percent is all I need to be able to go forward.

You can just see the math there. There's no overall level of expectation. It's just percent times percent times assessed value, bam.

Q. Do you do anything to adjust for the fact that the owners of the properties that are experiencing the depressed market value benefited from those lower property values when they purchased the property?

MR. PENDELL: Objection.

A. Well, no, this, I think, would not be the kind of thing that would be a correct calculation here. If something falls in value, it falls in value. If you're the buyer of that, maybe you're a little better off; but if you're the seller, you're way worse off.

Q. Okay. So is the answer that you did not do anything to adjust for the fact that the -- that some purchasers of the properties with what you say is a depressed market value benefited from that depressed market value when they bought the properties in the first place?

MR. PENDELL: Objection.

MR. KO: Asked and answered.

A. This is a -- sorry. This is a wealth destruction. There are holdings in the -- if you want to say portfolios of local people, that are diminished by the expectation of crime. It's -- I don't know, it's a -- I don't even know how to say it beyond that. To construct this in some way to benefit people is, I think, really an odd aspect of economics -- would be an odd application of economics.

Q. Well, it's not to say they benefit from it, but you're saying they're harmed by it without measuring the countervailing consideration.

MR. KO: Object to the form.

A. No, here's the --

Q. They may sell it for less, but they paid for less at the same time.

MR. PENDELL: Objection.

MR. KO: I don't know if there's a question pending, but object to the form.

THE DEPONENT: I have a statement to make even if there's not a question pending.

MR. KO: Go for it.

A. Okay, here's the thought experiment: There

is residential property owned by people in the end of 2019, and it is what it is, and one of the factors that influence the market value of those properties is the expectation of the, you know, neighborhood safety. Is my -- I'm going to go out and walk the dog at night without worrying; is my child not going to be exposed to, you know, needle exchange at a park down the street.

Those things will affect the property values. And at the end of 2019, they have a certain value. And now the thought experiment is: I'm going to wave an economic magic wand and take away 7.2 percent of the future crime that you, property owner, are worried about.

Bing, everyone's property value goes up. That's it.

Q. Are you finished with your statement?

A. Yes, I am.

Q. Okay. Could you turn to Paragraph 33 of your report?

A. Okay.

Q. You say in your report, "From an economic standpoint, the costs due to the sales and distribution of prescription opioids include costs

for which prescription opioids are the proximate cause" "and those for which prescription opioids were the ultimate but not necessarily the proximate cause."

Do you see that?

A. Well, yeah, I was in the wrong paragraph in the appendix. So it will just take me one second, but --

Q. Sure. It's page 17 of your report.

A. Okay, I see that.

Q. Okay. So is it accurate to say that the costs that you've calculated due -- as being due to the sales and distribution of prescription opioids include some costs for which prescription opioids are the proximate cause and some costs for which prescription opioids were not necessarily the proximate cause?

A. I think that's fair to say.

MR. KEYES: I don't have any further questions at this point.

Do any other counsel have questions?

MR. PENDELL: Plaintiffs counsel may. I would like to take a break, but I don't want to interfere with any of the other defendants that may

have questions.

I mean, Andy, if I knew you were going to be so short, we probably could have skipped lunch. But if I could have five minutes to talk to David for a moment, David Ko, I'd appreciate it.

MR. KEYES: Sure.

MR. KO: And Tom, go ahead and -- if you don't mind, Tom, why don't you just stay on the Zoom. And you don't have to mute if you mind staying for a moment. Okay?

VIDEO OPERATOR: Going off the record, the time is 1:25 p.m.

(A recess was taken after which the proceedings continued as follows:)

VIDEO OPERATOR: This begins Media Unit 5 in the deposition of Tom McGuire. We're back on the record. The time is 1:28 p.m.

EXAMINATION

BY MR. KO:

Q. Hey, Tom --

MR. KO: And just for the record, this is David Ko of Keller Rohrback on behalf of the plaintiffs.

Q. I just have a few follow-up questions

regarding some of the stuff that Andy Keyes asked you this morning. And I'm going to call him "Andy" just to not confuse him with the expert, the plaintiff's expert, Kathy Keyes. (Zoom audio glitch)

A. Yeah, her beard looks very different than Andy's.

Q. So earlier today and this morning, I think Andy had asked you whether you had measured the benefits of treating patients with prescription opioids. Do you recall that?

A. I do, yes.

Q. And in response to these questions, you generally responded that you were relying on the clinical inputs of other experts, and I believe in particular Doctor Waller and Doctor Lembke. Do you recall that?

A. I do, yes.

Q. And for context - and so the record is clear - the sections of your report that you were discussing these questions that Andy asked was in the Morbidity/OUD or Opioid Use Disorder section of your report, correct?

A. That's correct.

Q. And just so the record is clear once again, this is Section 3B of your report, I believe, right? And take your time to concretely confirm that.

A. That's correct.

Q. Okay. Now, in that section and with respect to morbidity - and setting aside your reliance on Doctors Lembke and Waller - did you do any other economic analyses to quantify the potential benefit and costs related to prescription opioid use?

A. Yes, I did.

Q. And it appears that you performed an economic analysis of the impact of prescription opioids on workplace productivity; is that correct?

A. That's generally correct, yes.

Q. And can you describe to the Court briefly why you performed this analysis?

A. Well, I was attempting to address the issue of what were the potential economic benefits to prescription opioids, and weigh those against costs in the same domain, the domain here being work force productivity.

And in order to do that, I examined

literature, which has a number of studies of the relationship between opioids and work, and came to a determination that on balance, on net, the negative effects on productivity outweigh the positive effects.

And you know, there are some studies that are very directly related to address that question.

Q. And is this analysis that you described a reasonable economic analysis to measure net benefits and costs?

MR. KEYES: Objection to form.

A. Well, it is. The -- again, what I did in this context was to review other papers that established the net -- the net costs or positive costs outweigh the benefits, but then going forward, I treated them as zero. I treated them as balancing out just exactly.

Which, you know, is a kind of measurement and it's a -- certainly a under -- an undercount or a conservative measurement of the net costs.

Q. And with respect to the studies that you just described, those studies, I presume, contain

data and evidence underlying those studies. Is that a fair assessment?

A. Yeah, all of them are empirical studies, yes.

Q. Okay. And so would you -- would it be fair to say that workplace productivity is a reasonable empirical proxy to measure benefits and costs for an economic analysis?

MR. KEYES: Objection to form.

A. It's -- in this -- in this context, this is where -- you know, from an economic standpoint, this is how potential benefits might manifest themselves. So yes, I think it's a reasonable approach to -- you know, figuring your -- of benefits in relation to costs in economic terms.

Q. And just a few more questions, Tom. Turn to Paragraph 63 of your report.

A. Okay.

Q. Okay. In that paragraph -- let's see. I believe you identify and indicate that the primary analysis you have performed regarding workplace productivity is complemented by the clinical opinions offered by other experts, including, as we discussed earlier today, Doctors Lembke and Doctor

Waller. Is that correct?

A. Yes, I use the word "complemented" in the first sentence there.

Q. So would it also be fair to say that these clinical inputs that you discuss here supplement the primary economic analysis you performed regarding workplace productivity?

A. Yes, that's fair to say.

Q. Okay.

MR. KO: That's all I have. Thank you, Tom.

MR. KEYES: Does anyone else have any questions for Professor McGuire?

MR. PENDELL: I just want to note that we'll read and sign. I want to make sure that I don't forget to say that.

MR. KEYES: Professor McGuire, thank you for your time.

MR. KO: Thanks everyone.

THE DEPONENT: Thank you.

VIDEO OPERATOR: We are off the record at 1:34 p.m., and this concludes today's testimony given by Tom McGuire. The total number of media units used was five and will be retained by

Veritext.

(Having indicated he would like to read his deposition before filing, further this deponent saith not.)

--oOo--

STATE OF WEST VIRGINIA,
COUNTY OF JACKSON, to wit;

I, Teresa S. Evans, a Notary Public within and for the County and State aforesaid, duly commissioned and qualified, do hereby certify that the foregoing deposition of THOMAS McGUIRE was duly taken by me and before me at the time and place and for the purpose specified in the caption hereof, the said witness having been by me first duly sworn.

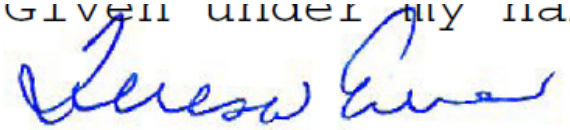
I do further certify that the said deposition was correctly taken by me in shorthand notes, and that the same were accurately written out in full and reduced to typewriting and that the witness did request to read his transcript.

I further certify that I am neither attorney or counsel for, nor related to or employed by, any of the parties to the action in which this deposition is taken, and further that I am not a relative or employee of any attorney or counsel employed by the parties or financially interested in the action and that the attached transcript meets the requirements set forth within article twenty-seven, chapter forty-seven of the West Virginia Code.

My commission expires October 25, 2020.

Given under my hand this 11th day of September,

Given under my hand



Teresa S. Evans
RMR, CRR, RPR, WV-CCR

STATE OF WEST VIRGINIA

COUNTY OF KANAWHA, to wit;

I, Teresa Evans, owner of Realtime Reporters, LLC, do hereby certify that the attached deposition transcript of THOMAS McGUIRE meets the requirements set forth within article twenty-seven, chapter forty-seven of the West Virginia Code to the best of my ability.

Given under my hand this 11th day of September, 2020.

Given under my hand

Registered Professional
Reporter/Certified Realtime Reporter

Veritext Legal Solutions
1100 Superior Ave
Suite 1820
Cleveland, Ohio 44114
Phone: 216-523-1313

September 14, 2020

To: Michael Pendell, Esquire

Case Name: City of Huntington v. Amerisourcebergen Drug Corporation

Veritext Reference Number: 4245440

Witness: Thomas McGuire Deposition Date: 9/9/2020

Dear Sir/Madam:

Enclosed please find a deposition transcript. Please have the witness review the transcript and note any changes or corrections on the included errata sheet, indicating the page, line number, change, and the reason for the change. Have the witness' signature notarized and forward the completed page(s) back to us at the Production address shown above, or email to production-midwest@veritext.com.

If the errata is not returned within thirty days of your receipt of this letter, the reading and signing will be deemed waived.

Sincerely,
Production Department

NO NOTARY REQUIRED IN CA

DEPOSITION REVIEW
CERTIFICATION OF WITNESS

ASSIGNMENT REFERENCE NO: 4245440
CASE NAME: City of Huntington v. Amerisourcebergen Drug Corporation, et al.
DATE OF DEPOSITION: 9/9/2020
WITNESS' NAME: Thomas McGuire
In accordance with the Rules of Civil Procedure, I have read the entire transcript of my testimony or it has been read to me.
I have made no changes to the testimony as transcribed by the court reporter.

_____ _____
Date Thomas McGuire

Sworn to and subscribed before me, a Notary Public in and for the State and County, the referenced witness did personally appear and acknowledge that:

They have read the transcript;
They signed the foregoing Sworn Statement; and
Their execution of this Statement is of their free act and deed.

I have affixed my name and official seal

this _____ day of_____, 20____.

_____
Notary Public

_____
Commission Expiration Date

DEPOSITION REVIEW
CERTIFICATION OF WITNESS

ASSIGNMENT REFERENCE NO: 4245440
CASE NAME: City of Huntington v. Amerisourcebergen Drug Corporation, et al.
DATE OF DEPOSITION: 9/9/2020
WITNESS' NAME: Thomas McGuire

In accordance with the Rules of Civil Procedure, I have read the entire transcript of my testimony or it has been read to me.

I have listed my changes on the attached Errata Sheet, listing page and line numbers as well as the reason(s) for the change(s).

I request that these changes be entered as part of the record of my testimony.

I have executed the Errata Sheet, as well as this Certificate, and request and authorize that both be appended to the transcript of my testimony and be incorporated therein.

_____ _____
Date Thomas McGuire

Sworn to and subscribed before me, a Notary Public in and for the State and County, the referenced witness did personally appear and acknowledge that:

They have read the transcript;
They have listed all of their corrections in the appended Errata Sheet;
They signed the foregoing Sworn Statement; and
Their execution of this Statement is of their free act and deed.

I have affixed my name and official seal this _____ day of_____, 20____.

_____
Notary Public

_____
Commission Expiration Date

ERRATA SHEET

VERITEXT LEGAL SOLUTIONS MIDWEST

ASSIGNMENT NO: 4245440

PAGE/LINE(S) / CHANGE /REASON

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Date Thomas McGuire

SUBSCRIBED AND SWORN TO BEFORE ME THIS _____

DAY OF _____, 20_____ .

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Notary Public

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Commission Expiration Date

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f

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q

Federal Rules of Civil Procedure

Rule 30

(e) Review By the Witness; Changes.

(1) Review; Statement of Changes. On request by the deponent or a party before the deposition is completed, the deponent must be allowed 30 days after being notified by the officer that the transcript or recording is available in which:

(A) to review the transcript or recording; and

(B) if there are changes in form or substance, to sign a statement listing the changes and the reasons for making them.

(2) Changes Indicated in the Officer's Certificate. The officer must note in the certificate prescribed by Rule 30(f)(1) whether a review was requested and, if so, must attach any changes the deponent makes during the 30-day period.

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COMPANY CERTIFICATE AND DISCLOSURE STATEMENT

Veritext Legal Solutions represents that the foregoing transcript is a true, correct and complete transcript of the colloquies, questions and answers as submitted by the court reporter. Veritext Legal Solutions further represents that the attached exhibits, if any, are true, correct and complete documents as submitted by the court reporter and/or attorneys in relation to this deposition and that the documents were processed in accordance with our litigation support and production standards.

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